RESIDENCES AT CHESTNUT BUILDING 2

SITE DEVELOPMENT DRAWINGS

TAX MAP 73 LOTS 30A AND 31 · MERRIMACK STREET

MANCHESTER · NEW HAMPSHIRE · 03101

MAY 23, 2022

LINCOLN AVENUE CAPITAL

PREPARED FOR

LINCOLN CAPITAL ACQUISITION, LLC

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PREPARED BY

MARKET SQUARE ARCHITECTS

FUSS & O'NEILL

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PROJECT TEAM

ENGINEER, SURVEYOR,
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811 DigSafe MA·ME·NH·RI·VT

CONTACT DIG SAFE 72 HOURS
PRIOR TO CONSTRUCTION

THE LOCATION OF ANY UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. FUSS & O'NEILL MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. 72 HOURS PRIOR TO ANY EXCAVATION ON SITE, THE CONTRACTOR SHALL CONTACT DIG-SAFE AT 1-888-DIG-SAFE.

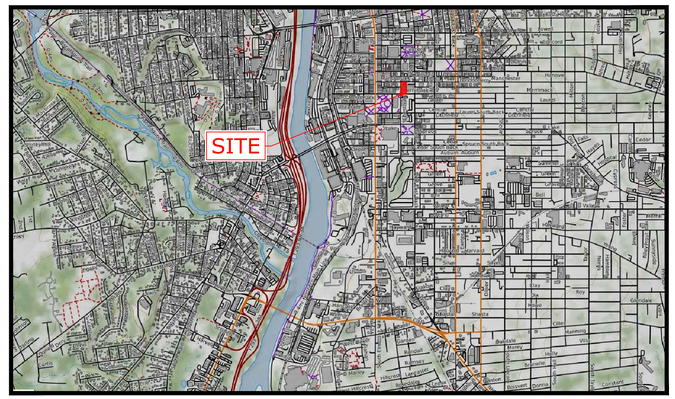
NPDES NOTE:

- THIS PROJECT DISTURBS 31,000±SF FOR BUILDING 2 (0.75± AC) OF LAND WHICH DOES NOT EXCEED THE NPDES THRESHOLD AMOUNT OF 43,560 SF (1 AC). THEREFORE, THE PROJECT HAS THE OPTION TO OBTAIN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT COVERAGE AS ISSUED BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA). THE OWNER/DEVELOPER AND "OPERATOR" (GENERAL CONTRACTOR) HAVE THE OPTION TO PREPARE AND SUBMIT A NOTICE OF INTENT (NOI) TO THE EPA PRIOR TO THE START OF CONSTRUCTION AND SHALL BE RESPONSIBLE FOR THE PREPARATION AND IMPLEMENTATION OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MEETING THE REQUIREMENTS OF THE CURRENT NPDES PERMIT. SEE NPDES NOTES ON SHEET GI-201.

SHEET INDEX

PROGRESS SET

PLANS UNDER DESIGN DEVELOPMENT.
ISSUED FOR INTERIM REVIEW ONLY.
PENDING CITY APPROVAL.
NOT FOR CONSTRUCTION.



LOCATION MAP

SCALE: 1" = 2000'

REQUIRED APPROVALS

	PERMIT #	DATE APPROVED	EXPIRATION DATE
PLANNING BOARD			
SITE PLAN	PENDING	-	-
CONDITIONAL USE PERMIT - ALLOW RESIDENTIAL WITHIN CBD ZONE	PENDING	-	-
ZONING BOARD			
VARIANCE ARTICLE 8.04 - MULTIFAMILY DENSITY 32 UNITS PERMITTED, GRANTED UP TO 50 UNITS	ZBA2022-032	04/14/2022	04/14/2024
NHDES			
SEWER CONNECTION PERMIT	PENDING	-	-

STATE OF NEW HAMPSHIRE · ARMAND ALPHONSE DUBOIS III · No. 11921 · DRAFT · LICENSED PROFESSIONAL ENGINEER

RESERVED FOR CITY APPROVAL

IT IS HEREBY AGREED THAT, AS THE OWNER/DEVELOPER OF THE PROPERTY (OR OWNER/DEVELOPER'S REPRESENTATIVE), I WILL CONSTRUCT THE PROJECT AS APPROVED AND AS SHOWN ON THE ENCLOSED SET OF PLANS. FURTHER, I AGREE TO MAINTAIN THE SITE IMPROVEMENTS FOR THE DURATION OF THE USE.

OWNER/DEVELOPER (OR REPRESENTATIVE) DATE

PROJ. No.: 20191236.A10
DATE: APRIL 2022

GI-200

LEGEND

EXIST	PROP	
		PROPERTY LINE/RIGHT-OF-WAY
		CENTERLINE
	LOD	LIMIT OF DISTURBANCE
		EASEMENT
		BUILDING SETBACK
		STATE HIGHWAY BASELINE
10+00	10+00	BASELINE
		ZONING LINE
		EDGE OF WATER
		WETLAND LINE
		WETLAND BUFFER
		WETLAND SYMBOL
		GRAVEL ROAD
		EDGE OF PAVEMENT
		BITUMINOUS CURB
		CONCRETE CURB
		PRECAST CONC. CURB
		VERT. GRAN. CURB
		LIMIT OF CURB TYPE
		SAW CUT
MATCH LINE	SEE SHEET XXX-XX	MATCH LINE
SWL	SWL	SOLID WHITE LINE
SYL	SYL	SOLID YELLOW LINE
BWL	BWL	BROKEN WHITE LINE
BYL	BYL	BROKEN YELLOW LINE
SWCHL	SWCHL	SOLID WHITE CHANNELIZING LINE
SYCHL	SYCHL	SOLID YELLOW CHANNELIZING LINE
DYL	DYL	DOUBLE YELLOW LINE
STOP	STOP	STOP LINE
		GUARD RAIL
		STOCKADE FENCE
		WIRE FENCE
		CHAIN LINK FENCE
		TREE LINE
		SHRUB LINE
		STONE WALL
		RETAINING WALL
2	4	MINOR CONTOUR
10	20	MAJOR CONTOUR
TS	TS	TOP of SLOPE
BS	BS	BOTTOM of SLOPE
		BUILDING
		BOLLARD
		SIGN
PM	PM	DOUBLE SIGN
		PARKING METER
10	10	PARKING COUNT
		CROSSWALK
		CONC. PAVEMENT
		PAVEMENT
		HANDICAP RAMP
		HANDICAP PARKING
VAN	VAN	VAN-ACCESSIBLE HANDICAP PARKING
21.25 TC 21.25 BC	21.25 TC 21.25 BC	TOP & BOTTOM ELEVATION
21.25	21.25	SPOT ELEVATION w/LEADER
x21.25	x21.25	SPOT ELEVATION
		SOIL BORING
		MONITORING WELL
		TEST PIT LOCATION
		IRON PIPE
		DRILL HOLE
		IRON PIN
		MONUMENT
		MAIL BOX
		CONTROL POINT
SILT	SILT FENCE	
HAYBALES		

ABBREVIATIONS

GENERAL

APRX.	APPROXIMATE	PCC	PRE CAST CONCRETE CURB
BIT.	BITUMINOUS	PROP	PROPOSED
BW	BOTTOM OF WALL	REM	REMOVE
CC	CONCRETE CURB	R&D	REMOVE AND DISPOSE
BCC	CAPE CODE BERM	R&R	REMOVE AND RESET
CONC.	CONCRETE	R&S	REMOVE AND STACK
ELEV	ELEVATION	TOS	TOP OF SLOPE
EXIST	EXISTING	TW	TOP OF WALL
GC	GRANITE CURB	TYP	TYPICAL
MAX	MAXIMUM	VGC	VERTICAL GRANITE CURB
MIN	MINIMUM		
NTS	NOT TO SCALE		

UTILITY

CB	CATCH BASIN	INV	INVERT ELEVATION
CMP	CORRUGATED METAL PIPE	PVC	POLYVINYL CHLORIDE PIPE
CPP	CORRUGATED POLYETHYLENE PIPE	RCP	REINFORCED CONCRETE PIPE
DCB	DOUBLE CATCH BASIN	RD	ROOF DRAIN
DI	DUCTILE IRON PIPE	SMH	SEWER MANHOLE
F&G	FRAME AND GRATE	TSV	TAPPING SLEEVE, VALVE AND BOX
F&C	FRAME AND COVER	UP	UTILITY POLE
HDPE	HIGH DENSITY POLYETHYLENE PIPE		
HYD	HYDRANT		

LEGEND (CONT.)

D	STORM DRAINAGE PIPE
U	UNDERDRAIN
S	SANITARY SEWER PIPE
OHW	OVERHEAD WIRES
W	WATER MAIN
G	UNDERGROUND GAS
UGETC	UNDERGROUND ELECTRIC, TELEPHONE, AND CABLE

EXIST	PROP	
		RIPRAP
S	S	SANITARY MANHOLE
D	D	STORM MANHOLE
E	E	ELECTRIC MANHOLE
T	T	TELEPHONE MANHOLE
		CATCH BASIN
		DOUBLE CATCHBASIN
WV	WV	WATER VALVE
		FIRE HYDRANT
		UTILITY POLE
		BOLLARD/POST
		SIGN
GG	GG	GAS GATE
		LIGHTPOLE
		FLARED END
		DECIDUOUS TREE

NPDES NOTES:

1. THIS PROJECT DISTURBS 31,000±SF FOR BUILDING 2 (0.75± AC) OF LAND WHICH DOES NOT EXCEED THE NPDES THRESHOLD AMOUNT OF 43,560 SF (1 AC). THEREFORE, THE PROJECT HAS THE OPTION TO OBTAIN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT COVERAGE AS ISSUED BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA). THE OWNER/DEVELOPER AND "OPERATOR" (GENERAL CONTRACTOR) HAVE THE OPTION TO PREPARE AND SUBMIT A NOTICE OF INTENT (NOI) TO THE EPA PRIOR TO THE START OF CONSTRUCTION AND SHALL BE RESPONSIBLE FOR THE PREPARATION AND IMPLEMENTATION OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MEETING THE REQUIREMENTS OF THE CURRENT NPDES PERMIT. SEE NPDES NOTES ON SHEET GI-201.
2. IF COMPLETED A COPY OF THE NOI AND SWPPP SHALL BE PROVIDED TO THE CITY PLANNING DEPARTMENT AND DPW/EPD, PERMIT ISSUANCE SHALL BE REQUIRED PRIOR TO DPW/EPD SIGN OFF.
3. COMPLETION OF EROSION CONTROL INSPECTIONS DURING CONSTRUCTION SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
4. DPW/EPD ARE TO BE COPIED ON PERMIT COMPLIANCE INCLUDING SUBMISSION OF THE SWPPP AND INSPECTION DOCUMENTS DURING CONSTRUCTION, IF COMPLETED.
5. IF COMPLETED, THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND EROSION CONTROL INSPECTION RECORDS SHALL BE MAINTAINED ON SITE AT ALL TIMES DURING CONSTRUCTION. DPW STAFF SHOULD ALSO BE COPIED ON PERMIT COMPLIANCE INCLUDING SUBMISSION OF THE SWPPP AND HAVE ACCESS TO EROSION CONTROL INSPECTION DOCUMENTS DURING CONSTRUCTION.

REGULATORY REQUIREMENTS NOTES

1. PROVIDE TRAFFIC SIGNAGE AND PAVEMENT MARKINGS IN CONFORMANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. ALL CONSTRUCTION ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST OSHA STANDARDS, STATE AND LOCAL REQUIREMENTS, AND CITY OF MANCHESTER REQUIREMENTS, POLICIES, AND SPECIFICATIONS.

EROSION AND SEDIMENT CONTROL NOTES

1. INSTALL EROSION CONTROL MEASURES PRIOR TO STARTING ANY WORK ON THE SITE.
2. IMPLEMENT ALL NECESSARY MEASURES REQUIRED TO CONTROL STORMWATER RUNOFF, DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE. PERFORM CORRECTIVE ACTION AS NEEDED FOR EROSION CLEANUP AND REPAIRS TO OFF SITE AREAS, IF ANY, AT NO COST TO OWNER.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN IN THE PLANS THROUGHOUT THE DURATION OF THE PROJECT IN ACCORDANCE WITH APPLICABLE NHDES STANDARDS. THE DETAILS PROVIDED SERVE AS A GUIDE ONLY.
4. INSPECT AND MAINTAIN EROSION CONTROL MEASURES PER TYPICAL STANDARDS. DISPOSE OF SEDIMENT IN AN UPLAND AREA. DO NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS.
5. IF, DURING CONSTRUCTION, IT BECOMES APPARENT THAT ADDITIONAL EROSION CONTROL MEASURES ARE REQUIRED TO STOP ANY EROSION ON THE CONSTRUCTION SITE, THE PROPERTY OWNER SHALL BE REQUIRED TO INSTALL THE NECESSARY EROSION PROTECTION AT NO EXPENSE TO THE MUNICIPALITY.
6. ALL PROPOSED AND EXISTING CATCH BASINS, THAT MAY RECEIVE STORMWATER RUNOFF FROM THE DEVELOPMENT DURING CONSTRUCTION, SHOULD BE OUTFITTED WITH INLET PROTECTION.
7. PERFORM CONSTRUCTION SEQUENCING IN SUCH A MANNER TO CONTROL EROSION AND TO MINIMIZE THE TIME THAT EARTH MATERIALS ARE EXPOSED BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED.
8. UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, REMOVE AND DISPOSE OF TEMPORARY EROSION CONTROL MEASURES. CLEAN SEDIMENT AND DEBRIS FROM TEMPORARY MEASURES AND FROM PERMANENT STORM DRAINAGE.
9. THE CONTRACTOR SHALL INSPECT ALL TEMPORARY EROSION CONTROL MEASURES AT LEAST ONCE A WEEK AND WITHIN TWENTY-FOUR (24) HOURS OF THE END OF A STORM WITH RAINFALL AMOUNT GREATER THAN 0.25 INCHES. THE INSPECTIONS SHALL VERIFY THAT THE STRUCTURAL BMPS SHOWN AND DESCRIBED ON THE PLANS ARE IN GOOD CONDITION AND ARE MINIMIZING EROSION. A MAINTENANCE AND INSPECTION REPORT SHALL BE MADE WITH EACH INSPECTION. COMPLETED INSPECTION FORMS SHALL BE KEPT ON-SITE FOR THE DURATION OF THE PROJECT AND BE MADE AVAILABLE FOR REVIEW BY THE CITY OF MANCHESTER UPON REQUEST.
10. ALL MANUFACTURED EROSION AND SEDIMENT CONTROL PRODUCTS, EXCEPT FOR SILT FENCE INSTALLED INACCORDANCE WITH ENV-WQ 1506.04, UTILIZED FOR, BUT NOT LIMITED TO, SLOPE PROTECTION, RUNOFF DIVERSION, SLOPE INTERRUPTION, PERIMETER CONTROL, INLET PROTECTION, CHECK DAMS, AND SEDIMENT TRAPS SHALL NOT CONTAIN WELDED PLASTIC, PLASTIC, OR MULTI-FILAMENT OR MONOFILAMENT POLYPROPYLENE NETTING OR MESH.

STORMWATER NOTES:

1. THIS PROJECT DISTURBS 35,000±SF FOR BUILDING 1 AND 31,000±SF FOR BUILDING 2, TOTALING 65,800±SF (1.5± AC) OF LAND WHICH DOES NOT EXCEED THE NPDES ALTERATION OF TERRAIN (AOT) THRESHOLD AMOUNT OF 100,000 SF. THEREFORE, THE PROJECT IS NOT REQUIRED TO OBTAIN AN NHDES AOT PERMIT.
2. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN IN THE PLANS THROUGHOUT THE DURATION OF THE PROJECT IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND MUNICIPALITY STANDARDS.
3. POST CONSTRUCTION, THE PROPERTY OWNER/OPERATOR SHALL SHALL BE RESPONSIBLE FOR MAINTAINING ALL DRAINAGE AND STORMWATER PRACTICES. REFER TO THE STORMWATER REPORT FOR THE OPERATION AND MAINTENANCE MANUAL.
4. WINTER DE-ICING PRODUCT SHALL BE APPLIED BY A GREEN SNOW PRO CERTIFIED CONTRACTOR. REFER TO THE INSPECTION AND MAINTENANCE MANUAL FOR THE WINTER MAINTENANCE AND SALT MINIMIZATION PLAN WITH ASSOCIATED INFORMATION. SALT SHALL NOT BE STORED ON SITE.

NHDES INVASIVE SPECIES NOTES

1. IF INVASIVE SPECIES ARE ENCOUNTERED ON SITE AND SHOULD BE REMOVED ACCORDING TO NHDES REQUIREMENTS.
2. THE CONTRACTOR SHALL TAKE STEPS TO PREVENT THE SPREAD OF INVASIVE PLANT, INSECT, AND FUNGAL SPECIES BY MEETING THE REQUIREMENTS AND INTENT OF RSA 430:53 AND AGR 3800 RELATIVE TO INVASIVE SPECIES. HTTP://GENCOURT.STATE.NH.US/RULES/STATE_AGENCIES/AGR3800.HTML

CONTAMINATED SOIL NOTE

1. DUE TO POTENTIAL SOIL CONTAMINATION, THE DESIGN OF THE SITE IS A NO NET EXPORT SITE. NO SOIL SHALL BE EXPORTED FROM THIS SITE UNLESS COORDINATED WITH NHDES FOR PROPER REMEDIATION, PRIOR TO REMOVAL.

PROPOSED BUILDING FLOOR ELEVATIONS AND SQUARE FOOTAGE:

- PROPOSED 5- STORY BUILDING
  - FIRST FLOOR ELEV = 213.50± (11,145±SF)
  - SECOND FLOOR ELEV = 225.50± (11,145±SF)
  - THIRD FLOOR ELEV = 235.50± (11,145±SF)
  - FOURTH FLOOR ELEV = 245.50± (11,145±SF)
  - TOTAL BUILDING AREA = 44,580±SF

BUILDING NOTES/ASSUMPTIONS TRANSMITTED FROM DESIGN TEAM:

- EXISTING BUILDING FOUNDATION IS TO BE ENTIRELY DEMOLISHED AND REMOVED
- 3.0' THICKNESS OF PODIUM (DEPTH OF STRUCTURE ABOVE GARAGE)
- THIS ALLOWS FOR REQUIRED 98" CLEARANCE FOR ADA STALLS (ADA 502.5)

DRAINAGE MAINTENANCE NOTES

PIPES

STEP 1 - CLEAN OUT PIPE USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 2 - REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
STEP 3 - INSPECT AND CLEAN BASINS AND MANHOLES

CATCH BASINS & PIPES

a. INSPECT CATCH BASINS EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.

b. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

PROPOSED DRAINAGE STRUCTURE SCHEDULE FOR BUILDING 2:

DMH 1043
RIM ELEV.=210.67'
INV. IN=201.0' 30"-36" METAL
CORE NEW INV. IN (18" HDPE) = 205.95' (CB 401)
CORE NEW INV. IN (6" UNDERDRAIN) = 208.00'± COORDINATE WITH CONTRACTOR
INV. OUT=199.4' (42" RCP-EXISTING)

CB 2740
EXISTING RIM ELEV.=208.99'
FIELD ADJUST RIM TO GRADE TO DRAIN (AS NECESSARY)
INV. OUT=205.5' (TOP OF HOOD)

CB 400 - DOUBLE GRATE CB
RIM ELEV. = 212.50'
INV.IN (6" HDPE) = 207.90' (UNDERDRAIN-MATCH CROWNS)
INV.OUT (18" HDPE) = 206.90' (CB 401)
L = 104', 18" HDPE, S = 0.005

CB 401
RIM ELEV. = 212.50'
INV.IN (12" HDPE) = 206.85' (ROOF DRAINS-MATCH CROWNS)
INV.IN (18" HDPE) = 206.35' (CB 400)
INV.OUT (18" HDPE) = 206.25' (DMH 1043)
L = 58', 18" HDPE, S = 0.005

DRAINAGE SCHEDULE NOTES:
SEE GENERAL NOTES PLAN SHEETS FOR ADDITIONAL NOTES AND INFORMATION

PROPOSED SEWER STRUCTURE SCHEDULE FOR BOTH BUILDING 1 AND BUILDING 2:

DMH 201 - OIL WATER SEPARATOR FOR GARAGE. SEE PROPOSED DRAINAGE STRUCTURE SCHEDULE

SMH 300
RIM ELEV. = 205.6'
INV.IN (8" PVC) = 201.10' UPPER LEVEL SPURS
INV.OUT (8" PVC) = 201.00' (SMH 301)
L = 51', 8" PVC, S = 0.005

SMH 301
RIM ELEV. = 206.0'
INV.IN (8" PVC) = 200.70' (SMH 300)
INV.IN (8" HDPE) = 200.70' (DMH 201-OWS)
INV.OUT (8" PVC) = 200.60' (SMH 302)
L = 61', 8" PVC, S = 0.005

SMH 302
RIM ELEV. = 205.55'
INV.IN (8" PVC) = 200.30' (SMH 301)
INV.IN (8" PVC) = 200.30' UPPER LEVEL SPURS
INV.OUT (8" PVC) = 200.20' (SMH 310-SEE NOTE THIS PAGE)
L = 96', 8" PVC, S = 0.005

BUILDING #1 INVERT = 199.85'
L = 30', 8" PVC, S = 0.005

BUILDING #2 INVERT = 202.35'
L = 35', 8" PVC, S = 0.005
WYE INTO EXISTING 12" AT 45°

SMH 310
LOCATION APPROXIMATE, ASSUMED PAVED OVER LOCATION PER POLICE STATION PLANS
UTILIZE EXISTING SERVICE, REPLACE PIPE AS NECESSARY, COORDINATE WITH DPW.
CALCULATED INV.=199.45'± (EXIST 8" CLAY)
ASSUME INV. =199.70' (FACTOR OF SAFETY)
CONTRACTOR TO VERIFY LOCATION AND INVERT

SEWER SCHEDULE NOTES:
1. MINIMUM 6.0' COVER OVER ALL SEWER LINES AND SEWER SERVICES.
2. IN AREAS WITH LESS THAN 6' COVER, INSTALL 2" THICK X 5' WIDE BLUEBOARD INSULATION ABOVE SEWER LINE.
3. REFER TO DETAILS SHEET FOR STRUCTURE AND PIPE RUN DETAILS.
4. INSTALL CLEANOUTS AT ALL VERTICAL AND HORIZONTAL BENDS AND A MAXIMUM OF EVERY 75'.
5. SEE GENERAL NOTES PLAN SHEETS FOR ADDITIONAL NOTES AND INFORMATION

PROPOSED SEWER FLOWS

PER TABLE 1008-1: DWELLINGS

ASSUMPTIONS:
- 150 GPD/BEDROOM
- 1.5 BEDROOMS PER UNIT
- 30 SEATS FOR CAFE AREA WITH 3 EMPLOYEES (PAPER FOOD SERVICE)
- 3 EMPLOYEES IN OFFICE (WITHOUT CAFETERIA)

BUILDING 1
RESIDENTIAL UNITS = (1.5 BR/UNIT X 98UNITS X 150 GPD/BR)
= 22,275 GPD
OFFICE = (10 GPD/EMPLOYEE)
= (10 GPD X 3 EMPLOYEES)
= 30 GPD
VEHICLE SNOW MELT/ STORMWATER RUNOFF/DRIP IN PARKING GARAGE UNDER
= ASSUME 100 GPD (CONSERVATIVE AMOUNT BASED ON PREVIOUS CONVERSATION WITH NHDES)

TOTAL FLOW BUILDING 1 = 22,405 GALLONS PER DAY PROPOSED
= 22,275 GPD + 30 GPD + 100 GPD

USE PEAKING FACTOR OF 6 FOR PIPE CAPACITY CALC FOR BUILDING 1
= 22,405 GPD/24 HR = 935 GPH
= 935 X 6 = 5,790 GALLONS PER HOUR
= 0.22 CFS (PIPE CAPACITY IS 1.7± CFS) = OK

BUILDING 2
RESIDENTIAL UNITS = 1.5 BR/UNIT X 43 UNITS X 150 GPD/BR)
= 9,675 GPD

TOTAL FLOW BUILDING 2 = 9,675 GPD

USE PEAKING FACTOR OF 6 FOR PIPE CAPACITY CALC FOR BUILDING 2
= 9,675 GPD/24 HR = 410 GPH
= 410 X 6 = 2,420 GALLONS PER HOUR
= 0.09 CFS (PIPE CAPACITY IS 1.7± CFS) = OK

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

STATE OF NEW HAMPSHIRE — ARMAND ALPHONSE DUBOIS III — No. 11921 — DRAFT — LICENSED PROFESSIONAL ENGINEER

SCALE: HORZ.: VERT.: DATUM: HORZ.: NAD83 - NH83 VERT.: NAVD88 — 0 — GRAPHIC SCALE

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RESIDENCES AT CHESTNUT
BUILDING 2
GENERAL NOTES
MANCHESTER NEW HAMPSHIRE

PROJ. No.: 20211191.A10
DATE: MAY 2022

GI-201

File Path: J:\DWG\P2021\11191\A10\Civil\Plan\20211191.A10_COV01.dwg Layout: GI-201 Plotted: Thu, May 26, 2022 - 10:59 AM User: adubois
Plotter: DWG TO PDF.PC3 CTB File: FO.STB
MS VIEW: LAYER STATE:

REFERENCE PLANS:

1. "ALTA/NSPS LAND TITLE SURVEY; TAX MAP 73 LOT S1, 30A, & 31 - 351 CHESTNUT STREET, MERRIMACK & PINE STREETS; MANCHESTER, NEW HAMPSHIRE; HILLSBOROUGH COUNTY" CREATED BY THIS OFFICE. INCLUDED IN THIS PLAN SET.

GENERAL PLAN NOTES:

1. SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SHOWN ON THE DRAWINGS TO SCALE OR TO THEIR ACTUAL DIMENSION OR LOCATION. COORDINATE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.
2. DO NOT RELY SOLELY ON ELECTRONIC VERSIONS OF DRAWINGS, SPECIFICATIONS, AND DATA FILES THAT ARE PROVIDED BY THE ENGINEER. FIELD VERIFY LOCATION OF PROJECT FEATURES.
3. SITE WORK SHALL BE CONSTRUCTED FROM A COMPLETE SET OF PLANS, NOT ALL FEATURES ARE DETAILED ON EVERY PLAN. THE ENGINEER IS TO BE NOTIFIED OF ANY CONFLICT WITHIN THIS PLAN SET. ALL PLAN SHEETS WILL BE ON FILE AT THE CITY OF MANCHESTER. SEE OTHER PLAN SHEETS FOR RELATED NOTES AND ASSOCIATED INFORMATION.

DEMOLITION PLAN NOTES:

1. THE PURPOSE OF THIS PLAN IS TO ILLUSTRATE AREAS AND LOCATIONS OF DEMOLITION RELATED TO THE PROPOSED PROJECT ON THE SUBJECT PARCEL AND WITHIN THE SURROUNDING CITY STREETS.
2. REMOVE AND DISPOSE OF EXISTING STUMPS AND UNSUITABLE MATERIAL IN ACCORDANCE WITH APPLICABLE NHDES STANDARDS.
3. REMOVE AND DISPOSE OF EXISTING UTILITIES, FOUNDATIONS, AND OTHER DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.
4. ALL GRANITE CURB SHALL BE SALVAGED TO THE CITY, UNLESS IT IS GOING TO BE REUSED ON SITE
5. NO CHANGES ARE PROPOSED OUTSIDE OF THE VISIBLE CONTENT PRESENTED ON THIS PLAN. SEE EXISTING CONDITIONS PLAN SHEET FOR AN OVERVIEW OF THE PROJECT AREA.
6. ANY BUILDING TO BE REMOVED FROM THE SITE MUST HAVE A DEMOLITION PERMIT.
7. SEE OTHER PLAN SHEETS FOR RELATED NOTES AND ASSOCIATED INFORMATION.

EXISTING CONDITIONS NOTES:

1. THE PURPOSE OF THIS PLAN IS TO DEPICT EXISTING CONDITIONS OF THE SUBJECT PARCELS LOCATED ON TAX MAP 73 LOTS 30A AND 31, WITH A PHYSICAL ADDRESS OF MERRIMACK STREET, MANCHESTER NH. FINAL ADDRESS TO BE DETERMINED WITH THE HIGHWAY DEPARTMENT AND E911.
2. OWNER OF RECORD FOR TAX MAP 73 LOTS 30A AND 31, MERRIMACK STREET IS "351 CHESTNUT STREET, LLC". WITH A LEGAL ADDRESS OF 351 CHESTNUT STREET, MANCHESTER, NH 03101. DEED REFERENCE AT THE HCRD IS BOOK 8766 PAGE 2686.
3. PROPERTY LINE/BOUNDARY LINE INFORMATION IS BASED ON REFERENCE PLAN 1. FIELD SURVEY WAS PERFORMED BY THIS OFFICE IN APRIL OF 2021. PLAN IS CONTAINED WITHIN THIS PLAN SET.
4. HORIZONTAL DATUM IS NH STATE GRID/CITY OF MANCHESTER GIS NAD83/92. VERTICAL DATUM IS NAVD88.
5. EXISTING CONDITIONS AND TOPOGRAPHY IS BASED ON A COMBINATION OF ACTUAL GROUND SURVEY FROM REFERENCE PLAN #1 COLLECTED IN MARCH/APRIL OF 2021, AERIAL IMAGES, CITY OF MANCHESTER GIS MAPPING, AND ONLINE NOAA CONTOURS. OFFSITE INFORMATION OF RESIDENCES WAS SUPPLEMENTED WITH CITY OF MANCHESTER GIS INFORMATION. F&O DID NOT PERFORM FULL GROUND SURVEY. NO REPRESENTATION OR WARRANTY IS MADE AS TO NON-SURVEY FEATURES OF REFERENCE BY F&O.
6. PER THE CURRENT CITY OF MANCHESTER ZONING ORDINANCE; THE SUBJECT PROPERTY IS ZONED CENTRAL BUSINESS (CBD) DISTRICT ALONG WITH ALL ABUTTING PROPERTIES TO THE NORTH, SOUTH, AND WEST. PROPERTIES TO THE EAST ARE ZONED R-3. ZONING REQUIREMENTS FOR THE CBD ZONING DISTRICT ARE AS FOLLOWS:

	REQUIRED:	EXISTING LOT:
MIN. LOT SIZE	N/A	30A)0.331±AC/14,423±SF (31) 0.291±AC/12,691±SF
MIN. LOT FRONTAGE	N/A	160.0' (MERRIMACK) 126.0' (MERRIMACK)
MIN. FRONT SETBACK	N/A	N/A (MERRIMACK) N/A (PINE)
MIN. SIDE SETBACK	N/A	N/A
MIN. REAR SETBACK	N/A	N/A
MIN. LOT COVERAGE	N/A	(30A) 72%± (10,490SF) (31) 76%± (9,653) 74.3%± (COMBINED)
MAX. BUILDING HEIGHT	N/A	N/A
MAX. BUILDING STORIES	N/A	N/A
MAX. FLOOR AREA RATIO	5.0	0.0

7. THERE ARE NO ONSITE WETLANDS ON THE SUBJECT PARCEL (74.3% IMPERVIOUS)
8. THIS PROPERTY IS SERVICED BY PUBLIC WATER (MWW), SEWER (CITY OF MANCHESTER), AND ELECTRIC SYSTEM (EVERSOURCE).
9. THE SUBJECT PARCEL OF LAND IS LOCATED IN ZONE X AS SHOWN ON FEMA FLOOD INSURANCE RATE MAP(S) FIRM 33015C0315E, EFFECTIVE DATE: MAY 17, 2005. FLOOD ZONE X IS NOT A SPECIAL FLOOD HAZARD AREA, AND DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.
10. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE SITE AND EXISTING CONDITIONS SURROUNDING IT AND THEREON.
11. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM THE LOCATION OF EXISTING FEATURES BOTH ABOVE GROUND AND BELOW, NO GUARANTEE IS MADE BY THIS OFFICE OR INDIVIDUALS OF LOCATION OF EXISTING FEATURES. UNDERGROUND UTILITIES ARE APPROXIMATE BASED ON REFERENCES LOCATED ON THE BOUNDARY PLAN.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION BE AGREED TO BY THE ENGINEER BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT NEW HAMPSHIRE DIG SAFE, AT 1-888-DIG-SAFE, AT LEAST 72 HOURS BEFORE DIGGING.
13. IF ANY ERROR OR OMISSION IN THESE PLANS IS DISCOVERED BY THE CONTRACTOR, THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD IMMEDIATELY IN WRITING FOR DIRECTION ON HOW TO PROCEED. THE CONTRACTOR SHALL DISCONTINUE WORK IN THE AFFECTED PROJECT AREA UNTIL AGREEMENT HAS BEEN REACHED WITH THIS FIRM ON CORRECTIVE ACTION.
14. SEE SEPARATE BORING LOGS FOR SUBSURFACE DATA/FINDINGS.
15. IF ANY ERROR OR OMISSION IN THESE PLANS IS DISCOVERED BY THE CONTRACTOR, THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD IMMEDIATELY IN WRITING FOR DIRECTION ON HOW TO PROCEED. THE CONTRACTOR SHALL DISCONTINUE WORK IN THE AFFECTED PROJECT AREA UNTIL AGREEMENT HAS BEEN REACHED WITH THIS FIRM ON CORRECTIVE ACTION.
16. SOIL BOUNDARIES ARE SHOWN PER THE NRCS WEB SOILS SURVEY REPORT AND THE SITE IS COMPRISED OF ENTIRELY URBAN FILL/LAND:

SOIL NAME	SOIL GROUP	NRCS SYMBOL	DRAINAGE CLASS
URBAN LAND	N/A	UR	N/A

17. NO SITE SPECIFIC SOIL SURVEY WAS PRODUCED DUE TO THE SITE BEING 74.3%± IMPERVIOUS AS WELL AS PRESENCE OF URBAN FILL/LAND.

VARIANCE NOTE:

- THIS PROJECT RECEIVED A VARIANCE FROM THE ZONING BOARD OF ADJUSTMENT.
- CASE NUMBER ZBA2022-032-APPROVED
  - VARIANCE GRANTED FROM 8.04 TO ALLOW UP TO 50 UNIT DENSITY

SITE PLAN NOTES:

1. THE PURPOSE OF THIS PLAN IS TO ILLUSTRATE PROPOSED SITE IMPROVEMENTS FOR THE CONSTRUCTION OF A FOUR STORY 11,145±SF FOOTPRINT, 43 UNIT MULTI-FAMILY RESIDENTIAL BUILDING ON THE SUBJECT PARCEL LOCATED ON TAX MAP 73 LOT 1, WITH A PHYSICAL ADDRESS OF 351 CHESTNUT STREET, MANCHESTER NH.
2. CHANGE OF OWNERSHIP OF THE LOT IS PROPOSED AFTER THE MERGER OF THE LOTS.
3. PROPERTY LINE/BOUNDARY LINE INFORMATION IS BASED ON REFERENCE PLAN 1.
4. PER THE CURRENT CITY OF MANCHESTER ZONING ORDINANCE; THE SUBJECT PROPERTY IS ZONED CENTRAL BUSINESS (CBD) DISTRICT ALONG WITH ALL ABUTTING PROPERTIES TO THE WEST. ABUTTERS TO THE RIGHT, ACROSS PINE STREET ARE ZONED R-3. ZONING REQUIREMENTS FOR THE CBD ZONING DISTRICT ARE AS FOLLOWS:

	REQUIRED:	EXISTING LOTS:	PROPOSED LOT: (MERGED)
MIN. LOT SIZE	N/A	(30A)0.331±AC/14,423±SF (31) 0.291±AC/12,691±SF	0.622±AC/27,114±SF
MIN. LOT FRONTAGE	N/A	160.0' (MERRIMACK) 126.0' (MERRIMACK)	N/C
MIN. FRONT SETBACK	N/A	N/A (MERRIMACK) N/A (PINE)	0.8'±(MERRIMACK) 2.0'± (PINE)
MAX. SIDE SETBACK	N/A	N/A	2.7'±
MAX. REAR SETBACK	N/A	N/A	N/A
MAX. LOT COVERAGE	N/A	(30A) 72%± (10,490SF) (31) 76%± (9,653) 74.3%± (COMBINED)	76.2%± (20,663SF)
MIN. BUILDING HEIGHT	N/A	N/A	45'±
MIN. BUILDING STORIES	N/A	N/A	4 STORIES
MAX. FLOOR AREA RATIO	5.0	0	1.6± (44,580F±) (SEE AREAS ON GI-201)
MULTI-FAMILY DENSITY	SEE CALC	32 UNITS (SEE CALC)	43 UNITS (SEE CALC) (VARIANCE GRANTED)

5. MULTI-FAMILY DENSITY CALCULATION (PER ARTICLE 8.04)
   MINIMUM LOT SIZE FOR FIRST THREE (3) UNITS = 3,000SF
   MINIMUM ADDITIONAL LOT AREA AFTER FIRST THREE (3) UNITS = 500SF
   LOT SIZE = 27,114SF MINUS EASEMENTS = 17,760SF
   FIRST THREE (LOTS) = 3,000SF = 17,760 - 3,000SF = 14,760SF
   EACH ADDITIONAL UNIT = 500SF = 14,760SF/500SF = 29.5 UNITS
   3 UNITS + 29.5 UNITS = 32.5 UNITS PERMITTED BY ZONING ORDINANCE

   DENSITY PERMITTED BY ZONING ORDINANCE
   = 32.5 UNITS / 27,114SF LOT SIZE
   = 1 UNIT PER 834±SF
   DENSITY ALLOWED BY VARIANCE ZBA2021-070 GRANTED = UP TO 50 UNITS / 27,114SF LOT SIZE
   = 1 UNIT PER 542±SF
   DENSITY PROPOSED = 43 UNITS / 27,114SF LOT SIZE
   = 1 UNIT PER 630±SF

6. PARKING CALCULATIONS:
   6.1. CBD ZONE DOES NOT HAVE PARKING REQUIREMENTS.
   3 PARKING SPACES PROVIDED (2 ADA) IN THE SURFACE PARKING LOT OFF OF CHESTNUT
   NOTE: PARKING IS EXPECTED TO BE STREET PARKING, POTENTIAL GARAGE PARKING IN BUILDING 1, AND THE CITY OF MANCHESTER PARKING LOT ON PINE.
7. ALL PLAN SHEETS WILL BE ON FILE AT THE CITY OF MANCHESTER PLANNING DEPARTMENT.
8. SITE WORK SHALL BE CONSTRUCTED FROM A COMPLETE SET OF PLANS, NOT ALL FEATURES ARE DETAILED ON EVERY PLAN. THE ENGINEER IS TO BE NOTIFIED OF ANY CONFLICT WITHIN THIS PLAN SET.
9. IF, DURING CONSTRUCTION, IT BECOMES APPARENT THAT DEFICIENCIES EXIST IN THE APPROVED DRAWINGS, THE OWNER SHALL BE REQUIRED TO CORRECT THE DEFICIENCIES TO MEET THE REQUIREMENTS OF THE REGULATIONS AT NO EXPENSE TO THE CITY.
10. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE SITE AND EXISTING CONDITIONS SURROUNDING IT AND THEREON. THE CONTRACTOR SHALL ADVISE THE APPROPRIATE AUTHORITY OF HIS INTENTIONS AT LEAST 48 HOURS IN ADVANCE.
11. THE CONTRACTOR SHALL BID AND PERFORM THE WORK IN ACCORDANCE WILL ALL LOCAL, STATE AND NATIONAL CODES, SPECIFICATIONS, REGULATIONS, AND STANDARDS.
12. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS AT THE SITE. THESE PLANS, PREPARED BY FUSS & O'NEILL, INC. DO NOT EXTEND TO OR INCLUDE SYSTEM PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR THEIR EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF THE SURVEYOR OR ENGINEER HERE ON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEM THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEM WHICH MAY BE REQUIRED BY THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND/OR LOCAL REGULATIONS.
13. WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL USE CAUTION WHEN SCALING REPRODUCED PLANS, IN CASE OF CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWING AND/OR SPECIFICATION, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATIONS.
14. THE CONTRACTOR SHALL MAINTAIN EMERGENCY ACCESS TO ALL AREAS AFFECTED BY THEIR WORK AT ALL TIMES.
15. IF ANY ERROR OR OMISSION IN THESE PLANS IS DISCOVERED BY THE CONTRACTOR, THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD IMMEDIATELY IN WRITING FOR DIRECTION ON HOW TO PROCEED. THE CONTRACTOR SHALL DISCONTINUE WORK IN THE AFFECTED PROJECT AREA UNTIL AGREEMENT HAS BEEN REACHED WITH THIS FIRM ON CORRECTIVE ACTION.
16. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO THE CITY OF MANCHESTER SITE PLAN REGULATIONS, CITY OF MANCHESTER DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS, AND THE LATEST EDITION OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. ALL CONSTRUCTION DETAILS SHALL BE IN ACCORDANCE WITH THE CITY OF MANCHESTER.
17. THE DRIVEWAY IS DESIGNED TO ACCOMMODATE THE CITY OF MANCHESTER EMERGENCY VEHICLE WB-50 TRUCK CIRCULATION NEEDS.
18. SNOW SHALL NOT BLOCK SIGHT DISTANCES AND SHALL BE TRANSPORTED OFFSITE OR INTO OPEN AREAS IF NEEDED. OFFSITE TRANSPORT OF SNOW SHALL BE DONE SO IN ACCORDANCE WITH NHDES REGULATIONS.
19. FERTILIZER SHALL BE HANDLED IN ACCORDANCE WITH RSA 431:33 TO 35, OR AS AMENDED. SEE MANUAL OF BEST MANAGEMENT PRACTICES FOR AGRICULTURE IN NEW HAMPSHIRE AS PREPARED BY NEW HAMPSHIRE DEPARTMENT OF AGRICULTURE, AUGUST, 1993 OR AS AMENDED.
20. SITE SIGNAGE TO BE REVIEWED BY THE CITY PRIOR TO INSTALLATION. ANY PROPOSED SIGNAGE SHALL BE IN CONFORMANCE WITH THE ZONING ORDINANCE AND BROUGHT TO THE PLANNING BOARD AT A PUBLIC MEETING.
21. ALL WORK MUST CONFORM TO THE CITY OF MANCHESTER, DEPARTMENT OF WORKS STANDARD SPECIFICATIONS AND ANY WORK WITHIN THE CITY RIGHT OF WAY REQUIRES AN EXCAVATION PERMIT.
22. NO CERTIFICATE OF OCCUPANCY FOR THE NEW USES SHALL BE AUTHORIZED UNTIL ALL REQUIRED IMPROVEMENTS HAVE BEEN COMPLETED, UNLESS ADDRESSED BY THE PROVISION OF A FINANCIAL GUARANTEE, PURSUANT TO THE REQUIREMENTS OF SUBSECTION 4.14 OF THE MANCHESTER SUBDIVISION AND SITE PLAN REVIEW REGULATIONS.
23. CONDITIONAL APPROVAL OF THIS PLAN SHALL BE VALID FOR ONE YEAR, DURING WHICH TIME ALL CONDITIONS PRECEDENT TO FINAL APPROVAL SHALL BE COMPLETED AND PLANS SHALL BE SUBMITTED FOR FINAL APPROVAL;
24. ALL CONDITIONS SUBSEQUENT TO APPROVAL SHALL BE COMPLETED WITHIN TWO YEARS OF FINAL APPROVAL.
25. ALL STATE PERMITS WILL BE PROVIDED TO THE PLANNING DEPARTMENT UPON RECEIPT.
26. SEE OTHER PLAN SHEETS FOR RELATED NOTES AND ASSOCIATED INFORMATION.

GRADING, DRAINAGE, AND EROSION CONTROL PLAN NOTES:

1. THE PURPOSE OF THIS PLAN IS TO ILLUSTRATE THE PROPOSED GRADING, DRAINAGE, STORMWATER MANAGEMENT, AND EROSION CONTROL SITE IMPROVEMENTS FOR THE SUBJECT PARCEL.
2. SITE WORK SHALL BE CONSTRUCTED FROM A COMPLETE SET OF PLANS, NOT ALL FEATURES ARE DETAILED ON EVERY PLAN. THE ENGINEER IS TO BE NOTIFIED OF ANY CONFLICT WITHIN THIS PLAN SET. ALL PLAN SHEETS WILL BE ON FILE AT THE CITY OF MANCHESTER.
3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE SITE AND EXISTING CONDITIONS SURROUNDING IT AND THEREON. THE CONTRACTOR SHALL ADVISE THE APPROPRIATE AUTHORITY OF THEIR INTENTIONS AT LEAST 48 HOURS IN ADVANCE.
4. THE CONTRACTOR SHALL VERIFY TEMPORARY BENCH MARKS (TBMS) IDENTIFIED ON REFERENCE PLANS PRIOR TO CONSTRUCTION AND NOTIFY THE CERTIFIED LAND SURVEYOR OR ANY DISCREPANCIES.
5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM THE LOCATION OF EXISTING FEATURES BOTH ABOVE GROUND AND BELOW, NO GUARANTEE IS MADE BY THIS OFFICE OR INDIVIDUALS OF LOCATION OF EXISTING FEATURES. UNDERGROUND UTILITIES ARE APPROXIMATE BASED ON REFERENCES LOCATED ON THE COVER SHEET.
6. ALL DRAINAGE STRUCTURES IN PAVEMENT SHALL HAVE RIMS SET TO FINISH GRADE REGARDLESS OF ANY ELEVATIONS OTHERWISE SHOWN.
7. DRAINAGE PIPE LENGTHS NOTED ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
8. ALL EXCAVATIONS SHALL BE THOROUGHLY SECURED ON A DAILY BASIS BY THE CONTRACTOR AT THE COMPLETION OF CONSTRUCTION OPERATIONS IN THE IMMEDIATE AREA.
9. INSTALL UNDERDRAIN IN ALL CUT SECTIONS. CONNECT TO CATCH BASINS.
10. FLUSH CLEAN AND REMOVE ALL DEBRIS OF EXISTING AND PROPOSED CULVERTS DURING AND POST CONSTRUCTION.
11. INSPECT EXISTING CONDITION OF ALL PIPES/CULVERTS/HEADWALLS DURING CONSTRUCTION, REPLACE AS NECESSARY.
12. REMOVE ALL UNSUITABLE MATERIALS ENCOUNTERED DURING EXCAVATIONS AND REPLACE WITH SUITABLE FILL. CONTRACTOR TO COORDINATE ADDITIONAL TEST BORINGS, TEST PITS, AND COORDINATE WITH A GEOTECHNICAL ENGINEER, IF NECESSARY.
13. IF LEDGE IS DISCOVERED DURING EXCAVATION, REMOVE LEDGE A MINIMUM OF TWO (2) FEET BELOW GRAVELS AND REPLACE WITH SUITABLE MATERIAL. COORDINATE WITH ARCHITECT OR GEOTECHNICAL ENGINEER.
14. CONTRACTORS LOAM AND SEED ALL DISTURBED AREAS PER DETAIL LOCATED WITHIN THIS PLAN SET.
15. PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY, A WRITTEN CERTIFICATION FROM THE LICENSED ENGINEER SHALL BE PROVIDED TO STAFF STATING THAT THE PROJECT HAS BEEN COMPLETED IN CONFORMANCE WITH THE APPROVED PLANS.
16. ALL DRAINAGE IMPROVEMENTS SPECIFIED ON THESE SITE PLANS SHALL BE CONSTRUCTED, COMPLETED, INSPECTED, AND APPROVED BY THE CITY PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY, WHERE APPLICABLE. ALL STORMWATER STRUCTURES SHALL BE INSPECTED AND CLEANED FOLLOWING SITE STABILIZATION AND PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY, WHERE APPLICABLE. A REPORT INCLUDING THE INSPECTION FINDINGS AND CLEANING ACTIVITIES SHALL BE SUBMITTED TO DPW.
17. SEE OTHER PLAN SHEETS FOR RELATED NOTES AND ASSOCIATED INFORMATION. REFER TO EROSION CONTROL NOTES ON PLAN SHEET GI-101.

LIGHTING PLAN NOTES:

1. THE PURPOSE OF THIS PLAN IS TO SHOW PROPOSED LIGHTING FOR THE SUBJECT PROPERTY. THIS ANALYSIS WAS PERFORMED AND PROVIDED BY KEN SWEENEY CHARRON INC. 603-624-4827, KSWEENEY@CHARRONINC.COM
2. THE PROFESSIONAL ENGINEER ENDORSEMENT BY F&O ON THIS SHEET DOES NOT INCLUDE DESIGN ENDORSEMENT OF THIS DETAILED INFORMATION. CONTACT CHARRON INC. FOR ADDITIONAL INFORMATION.
3. ALL SITE LIGHTING IS TO COMPLY WITH ALL PROVISIONS OUTLINED WITHIN THE CITY OF MANCHESTER REGULATIONS.
4. LIGHTING CONDUIT DESIGNED BY OTHERS.
5. SEE DETAIL SHEETS FOR LIGHTING DETAILS.

BUILDING UTILITY PLAN NOTES:

1. UTILITY LOCATIONS AS SHOWN ON THESE PLANS HAVE BEEN OBTAINED FROM VARIOUS SOURCES AND THEIR LOCATIONS ARE ONLY APPROXIMATE. BEFORE ANY CONSTRUCTION ACTIVITY BEGINS, THE CONTRACTOR SHALL CONTACT DIG-SAFE AT 1-888-DIG-SAFE AND FIELD VERIFY ALL UTILITY LOCATIONS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING IF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION SHALL BE AGREED TO BY THE ENGINEER BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT NEW HAMPSHIRE DIG SAFE, AT 1-888-DIG-SAFE, AT LEAST 72 HOURS BEFORE DIGGING.
3. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES OWNING UTILITIES, EITHER OVERHEAD OR UNDERGROUND, WITHIN THE CONSTRUCTION AREA. THE PROTECTION OR RELOCATION OF UTILITIES IS ULTIMATELY THE RESPONSIBILITY OF THE CONTRACTOR.
4. THE CONTRACTOR SHALL COORDINATE MATERIALS AND INSTALLATION SPECIFICATIONS WITH THE INDIVIDUAL UTILITY AGENCIES/COMPANIES, AND ARRANGE FOR ALL INSPECTIONS.
5. INSTALLATION OF ALL UTILITIES SHALL BE UNDERGROUND.
6. MEP TO CONFIRM EXISTING ONSITE ELECTRIC SUPPLY IS SUFFICIENT FOR PROPOSED USES. IF UPGRADES ARE REQUIRED, MEP SHALL DESIGN AND COORDINATION WITH EVERSOURCE.
7. COORDINATE WITH ELECTRIC UTILITY COMPANY FOR FINAL ELECTRICAL LAYOUT.
8. INSTALL 2" THICK X 5' WIDE BLUEBOARD INSULATION ABOVE SEWER LINE IN ANY AREAS WITH LESS THAN 6' COVER, AND ABOVE WATER LINE IN ANY AREAS WITH LESS THAN 5.5' COVER (TYP)
9. PRIOR TO THE DATE OF APPROVAL OF THESE DESIGN PLANS; FINAL MECHANICAL, ELECTRICAL,PLUMBING (MEP), AND ARCHITECTURAL PLANS WERE NOT PROVIDED TO THE DESIGN ENGINEER. PRIOR TO CONSTRUCTION THE MEP CONTRACTORS AND ARCHITECTS ARE REQUIRED TO REVIEW, APPROVE, AND/OR AMEND ALL MEP AND ARCHITECTURAL DESIGN WITHIN THE BUILDINGS OR UPON THE SITE. INCLUDING BUT NOT LIMITED TO SIZES, MATERIALS, ELEVATIONS, AND OVERALL DESIGN. COORDINATE WITH THE MUNICIPALITY AND DESIGN ENGINEER FOR ALL PLAN REVISIONS.
10. A MINIMUM 10' HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL WATER AND SEWER UTILITIES. AT MAIN AND SERVICE CROSSINGS WHERE 10' HORIZONTAL SEPARATION IS NOT POSSIBLE, AN 18" VERTICAL CLEARANCE SHALL BE PROVIDED WITH WATER OVER SEWER.
11. EXTERNAL FIRE LANES ARE NON DEMARCATED AND PARKING SPACES ARE ILLUSTRATED UPON THE PLAN.
12. PLANS WILL REQUIRE A STATE OF NH LICENSED ARCHITECT AND/OR PROFESSIONAL ENGINEERS STAMP. THE PLAN REVIEW MAY INCLUDE BOTH BUILDING FIRE SAFETY REQUIREMENTS ON THE SAME PLAN.
13. ANY FUTURE PROPOSED CHANGE OF USE WILL REQUIRE AN AMENDED SITE PLAN TO BE SUBMITTED TO THE PLANNING BOARD OFFICE. A REVIEW OF THE SITE PLAN WILL BE CONDUCTED BY THE PLANNING BOARD.
14. INSTALL A FIRE SUPPRESSION SYSTEM DOUBLE CHECK VALVE ASSEMBLY FOR BACKFLOW PREVENTION. FIRE SUPPRESSION PLANS TO BE REVIEWED/APPROVED BY MANCHESTER WATER WORKS PRIOR TO IN CONSTRUCTION. A PLUMBING PLAN AND PLUMBING FIXTURE SUMMARY SHALL BE SUBMITTED TO MANCHESTER WATER WORKS TO CALCULATE THE SIZE OF THE WATER METER SO AS TO DETERMINE IF THE EXISTING METER IS SUFFICIENT OR REQUIRES UPGRADE.
15. FIRE PROTECTION WATER SUPPLIES MUST BE IN PLACE PRIOR TO ERECTION OF ANY STRUCTURE.
16. COORDINATE WITH THE CITY TO PROVIDE A PERFORMANCE GUARANTEE, TO SERVE AS A FINANCIAL SURETY IN THE EVENT OF ABANDONMENT, INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROLS THROUGHOUT THE CONSTRUCTION PERIOD, AND FULL AND FINAL COMPLETION OF PUBLIC IMPROVEMENTS.
17. ALL RETAINING WALLS SHALL HAVE DESIGN DRAWINGS STAMPED BY A STATE OF NH LICENSED PROFESSIONAL STRUCTURAL ENGINEER, AND SUBMITTED TO THE CITY FOR REVIEW.
18. CONTRACTOR TO CREATE TRAFFIC CONTROL PLAN FOR REVIEW AND APPROVAL WITH THE CITY PRIOR TO START OF CONSTRUCTION.
19. SEE OTHER PLAN SHEETS FOR RELATED NOTES AND ASSOCIATED INFORMATION.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

STATE OF NEW HAMPSHIRE
RYAN J. DUBOIS III
No. 11921
DRAFT
LICENSED
PROFESSIONAL ENGINEER

SCALE: HORZ.: VERT.:
DATUM: HORZ.: NAD83 - NH83 VERT.: NAVD88
0 GRAPHIC SCALE

FUSS&O'NEILL
50 COMMERCIAL STREET
MANCHESTER, NEW HAMPSHIRE 03101
603.668.8223
www.fando.com

RESIDENCES AT CHESTNUT
BUILDING 2
GENERAL NOTES

TAX MAP 73 LOTS 30A & 31
MERRIMACK STREET
MANCHESTER NEW HAMPSHIRE

PROJ. No.: 20211191.A10
DATE: MAY 2022

GI-202

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MS VIEW: LAYER STATE: Plotter: DWG TO PDF.PC3 CTB File: FO.STB

CITY OF MANCHESTER NOTICE OF DECISION CONDITIONS OF APPROVAL:

CONDITIONS PENDING PLANNING BOARD MEETING AND CITY REVIEW

AS-BUILT NOTES:

1. SINCE A STORMWATER LONG TERM MAINTENACE AGREEMENT (LTMA) WILL NOT BE REQUIRED FOR THE PROPOSED DRAINAGE SYSTEM, AS-BUILT CONDITIONS OF THE COMPLETED DRAINAGE SYSTEM MUST BE DOCUMENTED FOR CITY RECORDS AND TO MEET THE MOST RECENT NH 2017 MS4 REQUIREMENTS. AS FINAL APPROVAL OF THE PROPOSED DRAINAGE PLAN, THE APPLICANT SHALL SUBMIT A COMPLETE AS-BUILT CONDITIONS AND MYLAR PLAN SET TO BE KEPT ON FILE WITH THE DEPARTMENT OF PUBLIC WORKS:
   a. APPLICANTS SUBMITTING AS-BUILT MYLARS TO THE DPW SHALL ALSO SUBMIT A CD- ROM THAT CONTAINS A DIGITAL FILE WITH ALL FEATURES SHOWN ON THE MYLARS.
   b. THE PREFERRED FILE FORMAT FOR SUBMISSION IS THE AUTOCAD DRAWING (.DWG) FORMAT, HOWEVER, ANY OF THE FOLLOWING OTHER FORMATS ARE ACCEPTABLE: .DXF (DRAWING EXCHANGE FILE) FORMAT, ESRI GEODATABASE FORMAT (.MDB), ESRI EXPORT FILE FORMAT (.E00), OR ARCVIEW SHAPEFILE FORMAT (.SHP).
   c. EACH TYPE OF FEATURE ON THE DIGITAL FILE SHALL BE ON A SEPARATE LAYER, SUCH AS ONE LAYER FOR PARCEL BOUNDARIES, ONE LAYER FOR DRAINAGE, ONE LAYER FOR SEWER, AND ONE LAYER FOR CURBS.
   d. DATUMS FOR ALL DIGITAL FILES SUBMITTED SHALL BE NAD 83/92 (HARN) FOR THE HORIZONTAL DATUM (NOT NAD 83), AND NAVD 88 FOR THE VERTICAL DATUM. THE COORDINATES OF ALL STORMWATER INFRASTRUCTURE ELEMENTS (E.G., CATCH BASINS, MANHOLES, MANAGEMENT SYSTEMS, PIPING) SHALL BE INCLUDED IN THE DIGITAL FILES.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

STATE OF NEW HAMPSHIRE
ARMAND ALPHONSE DUBOIS III
No. 11921
DRAFT
LICENSED
PROFESSIONAL ENGINEER

SCALE:
HORZ.:
VERT.:
DATUM:
HORZ.: NAD83 - NH83
VERT.: NAVD88
0
GRAPHIC SCALE

FUSS & O'NEILL
50 COMMERCIAL STREET
MANCHESTER, NEW HAMPSHIRE 03101
603.668.8223
www.fando.com

RESIDENCES AT CHESTNUT
BUILDING 2
GENERAL NOTES

TAX MAP 73 LOTS 30A & 31
MERRIMACK STREET
MANCHESTER NEW HAMPSHIRE

PROJ. No.: 20211191.A10
DATE: MAY 2022

GI-203

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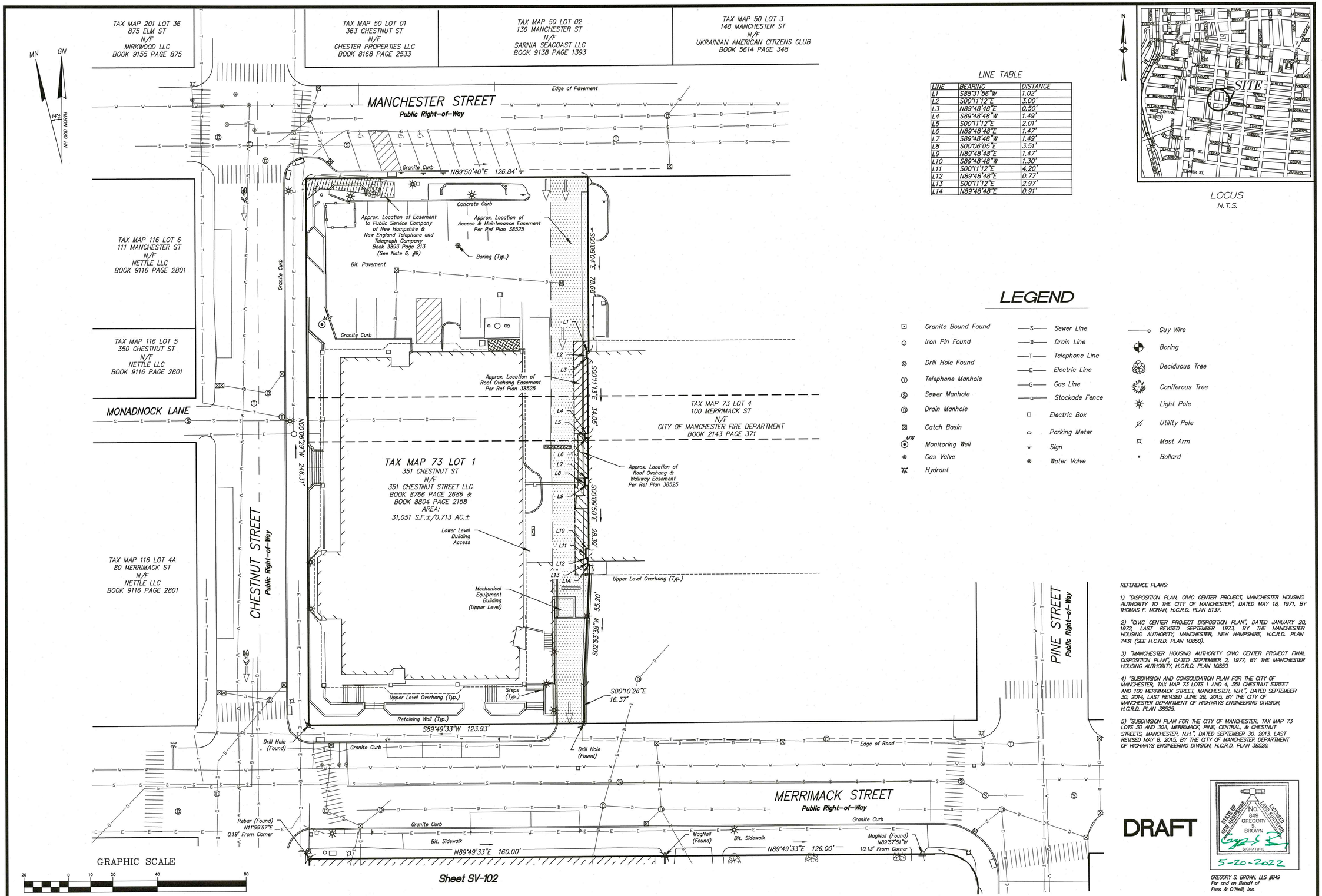


GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)

1 inch = 20 ft.

Sheet SV-102

LINE TABLE

LINE	BEARING	DISTANCE
L1	S88°31'56"W	1.02'
L2	S00°11'12"E	3.00'
L3	N89°48'48"E	0.50'
L4	S89°48'48"W	1.49'
L5	S00°11'12"E	2.01'
L6	N89°48'48"E	1.47'
L7	S89°48'48"W	1.49'
L8	S00°06'05"E	3.51'
L9	N89°48'48"E	1.47'
L10	S89°48'48"W	1.30'
L11	S00°11'12"E	4.20'
L12	N89°48'48"E	0.77'
L13	S00°11'12"E	2.97'
L14	N89°48'48"E	0.91'

LOCUS
N.T.S.

LEGEND

- Granite Bound Found
- Iron Pin Found
- Drill Hole Found
- Telephone Manhole
- Sewer Manhole
- Drain Manhole
- Catch Basin
- MW Monitoring Well
- Gas Valve
- Hydrant
- S Sewer Line
- D Drain Line
- T Telephone Line
- E Electric Line
- G Gas Line
- Stockade Fence
- Electric Box
- Parking Meter
- Sign
- Water Valve
- Guy Wire
- Boring
- Deciduous Tree
- Coniferous Tree
- Light Pole
- Utility Pole
- Mast Arm
- Bollard

REFERENCE PLANS:

1) "DISPOSITION PLAN, CIVIC CENTER PROJECT, MANCHESTER HOUSING AUTHORITY TO THE CITY OF MANCHESTER", DATED MAY 18, 1971, BY THOMAS F. MORAN, H.C.R.D. PLAN 5137.

2) "CIVIC CENTER PROJECT DISPOSITION PLAN", DATED JANUARY 20, 1972, LAST REVISED SEPTEMBER 1973, BY THE MANCHESTER HOUSING AUTHORITY, MANCHESTER, NEW HAMPSHIRE, H.C.R.D. PLAN 7431 (SEE H.C.R.D. PLAN 10850).

3) "MANCHESTER HOUSING AUTHORITY CIVIC CENTER PROJECT FINAL DISPOSITION PLAN", DATED SEPTEMBER 2, 1977, BY THE MANCHESTER HOUSING AUTHORITY, H.C.R.D. PLAN 10850.

4) "SUBDIVISION AND CONSOLIDATION PLAN FOR THE CITY OF MANCHESTER, TAX MAP 73 LOTS 1 AND 4, 351 CHESTNUT STREET AND 100 MERRIMACK STREET, MANCHESTER, N.H.", DATED SEPTEMBER 30, 2014, LAST REVISED JUNE 29, 2015, BY THE CITY OF MANCHESTER DEPARTMENT OF HIGHWAYS ENGINEERING DIVISION, H.C.R.D. PLAN 38525.

5) "SUBDIVISION PLAN FOR THE CITY OF MANCHESTER, TAX MAP 73 LOTS 30 AND 30A, MERRIMACK, PINE, CENTRAL & CHESTNUT STREETS, MANCHESTER, N.H.", DATED SEPTEMBER 30, 2013, LAST REVISED MAY 8, 2015, BY THE CITY OF MANCHESTER DEPARTMENT OF HIGHWAYS ENGINEERING DIVISION, H.C.R.D. PLAN 38526.

DRAFT

STATE OF NEW HAMPSHIRE LICENSED LAND SURVEYOR
No. 849
GREGORY S. BROWN
SIGNATURE
5-20-2022

GREGORY S. BROWN, LLS #849
For and on Behalf of
Fuss & O'Neill, Inc.

SEE NOTES SHEET SV-103

NO.	DATE	REVISION
DRAWN BY:		

FUSS&O'NEILL
50 COMMERCIAL STREET
MANCHESTER, NEW HAMPSHIRE 03101
603.668.8223
www.fando.com

CLIENT:
LINCOLN AVENUE CAPITAL
401 WILSHIRE BOULEVARD, SUITE 1070
SANTA MONICA, CALIFORNIA 90401

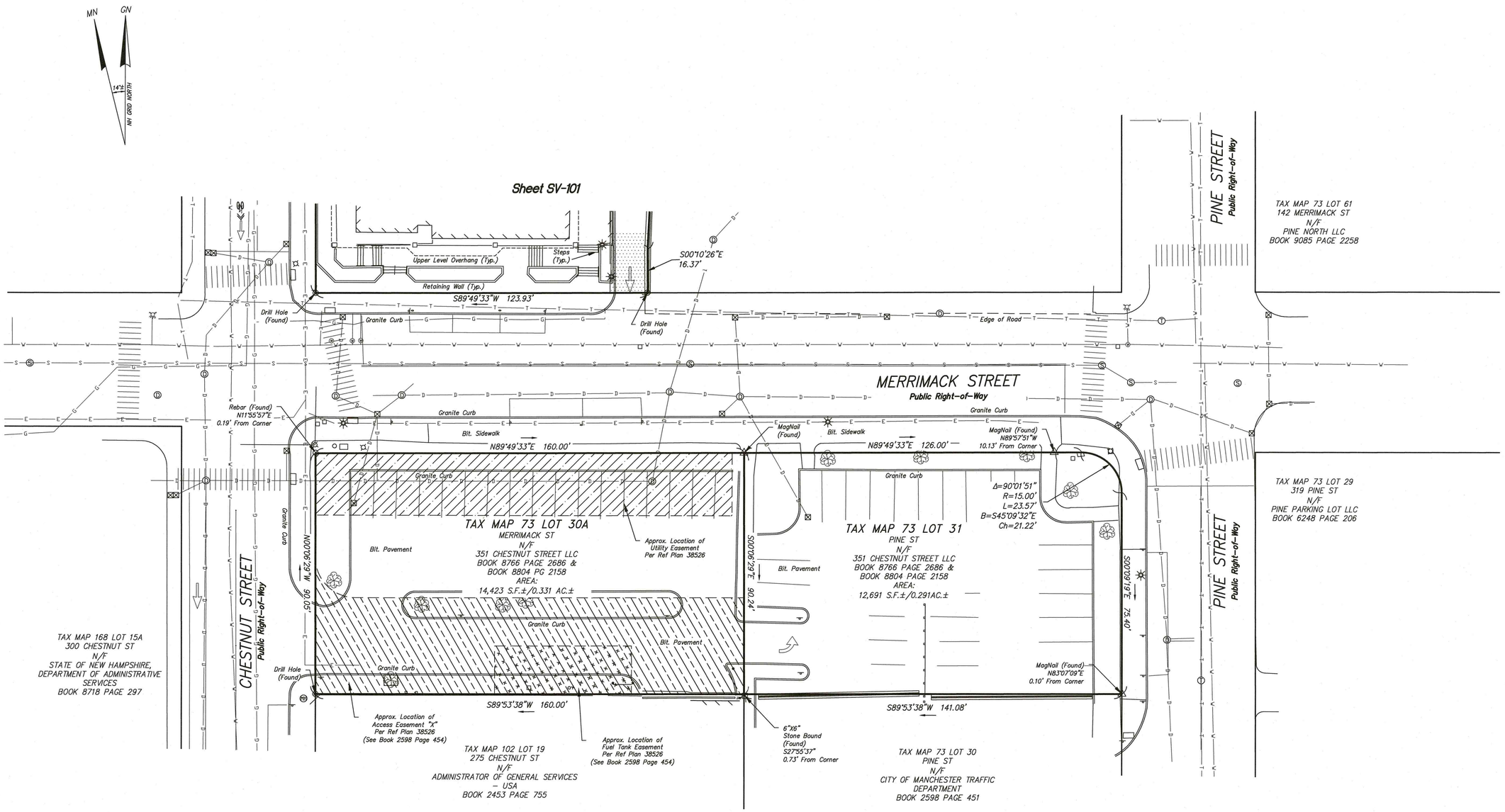
DEED HOLDER:
351 CHESTNUT STREET, LLC
P.O. BOX
CANDIA, NEW HAMPSHIRE 03034
BOOK 8766 PAGE 2686

ALTA/NSPS LAND TITLE SURVEY

TAX MAP 73 LOTS 1, 30A & 31
351 CHESTNUT STREET,
MERRIMACK & PINE STREETS
MANCHESTER, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

PROJ. No.: 20211191.A10
DATE: 03/25/2022
SCALE: 1"=20'

SV-101
SHEET 1 OF 3



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

DRAFT

NEW HAMPSHIRE — No. 849 GREGORY S. BROWN — LICENSED LAND SURVEYOR

SIGNATURE

5-20-2022

GREGORY S. BROWN, LLS #849
For and on Behalf of
Fuss & O'Neill, Inc.

SEE NOTES SHEET SV-103

NO.	DATE	REVISION
DRAWN BY:		

FUSS&O'NEILL
50 COMMERCIAL STREET
MANCHESTER, NEW HAMPSHIRE 03101
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CLIENT:
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401 WILSHIRE BOULEVARD, SUITE 1070
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DEED HOLDER:
351 CHESTNUT STREET, LLC
P.O. BOX
CANDIA, NEW HAMPSHIRE 03034
BOOK 8766 PAGE 2686

ALTA/NSPS LAND TITLE SURVEY

TAX MAP 73 LOTS 1, 30A & 31
351 CHESTNUT STREET,
MERRIMACK & PINE STREETS
MANCHESTER, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

PROJ. No.: 20211191.A10
DATE: 03/25/2022
SCALE: 1"=20'

SV-102
SHEET 2 OF 3

TITLE COMMITMENT DESCRIPTIONS

Three tracts or parcels of land, with the structures thereon, located in Manchester, County of Hillsborough, State of NewHampshire more particularly described as follows:

Parcel I

A certain tract or parcel of land located in Manchester, County of Hillsborough, State of New Hampshire more particularly described as follows:

Beginning at a drill hole set at the northwest corner of the parcel herein described, said point being the intersection of the easterly sideline of Chestnut Street with the southerly sideline of Manchester Street; thence,

N89°49'48"E along the said line of Manchester Street 126.84' to a magnetic nail set; thence,

S00°08'56"E 78.68' in line with and by the westerly face of a concrete retaining wall the northerly face of supporting column A; thence,

S88°31'04"W 1.02' by the northerly face of supporting column A to the westerly face of said column A; thence,

S00°12'04"E 3.00' by the westerly face of supporting column A to the southerly face of said column A; thence,

N89°47'56"E 0.50' by the southerly face of supporting column A to the westerly face of the foundation wall of the exiting fire station; thence,

S00°12'05"E 34.05' by the westerly face of the foundation wall of the exiting fire station to the northerly face of support column B; thence,

S89°47'56"W 1.49' by the northerly face of support column B to the westerly face of support column B; thence,

S00°12'04"E 2.01' by the westerly face of supporting column B to the southerly face of said column B; thence,

N89°47'56"E 1.47' by the southerly face of supporting column B to the westerly face of the foundation wall of the exiting fire station; thence,

S00°10'17"E 17.94' by the westerly face of the foundation wall of the exiting fire station to the northerly face of support column C; thence,

S89°47'56"W 1.49' by the northerly face of supporting column C to the westerly face of said column C; thence,

S00°06'57"E 3.51 by the westerly face of supporting column C to the southerly face of said column C; thence,

N89°47'56"E 1.47' by the southerly face of supporting column C to the westerly face of the foundation wall of the exiting fire station; thence,

S00°10'42"E 28.39' by the westerly face of the foundation wall of the exiting fire station to the northerly face of support column D; thence,

The following courses and distances by the northerly, westerly and southerly faces of support column D;

S89°47'56"W 1.30';

S00°12'04"E 4.20';

N89°47'56"E 0.77';

S00°12'04"E 2.97';

N89°47'56"E 0.91' to a point at the westerly face of a concrete retaining wall;

S02°52'46"W along said westerly face of concrete retaining wall 55.20' to a point; thence,

Continuing along said retaining wall face S00°11'18"E 16.37' to a drill hole in the northerly line of Merrimack Street; thence,

S89°48'39"W along said line of Merrimack Street 123.93' to a drill hole at the point of intersection of said line of Merrimack Street with the said easterly line of Chestnut Street; thence,

Along said line of Chestnut Street N00°07'21"W 246.31' to the point of beginning.

TITLE COMMITMENT DESCRIPTIONS *continued*

Parcel II

A certain tract or parcel of land located in Manchester, County of Hillsborough, State of New Hampshire more particularly described as follows:

Beginning at a Mag Nail set at the northwest corner of the parcel herein described, said point being on the southerly sideline of Merrimack Street and 160.00' west of the easterly sideline of Chestnut Street; thence,

N89°48'41"E along the said line of Merrimack Street 116.00' to a Mag Nail set; thence,

Continuing along the said line of Merrimack Street N89°48'41"E 10.00' to point; thence,

On a tangent curve to the right with a radius of 15.00' an arc length 23.57' to a Mag Nail set at the westerly sideline of Pine street; thence,

S00°10'11"E along the said line of Pine Street 75.40' to a Mag Nail set; thence,

S89°52'46"W 141.08' along a new line and the northerly line of parcel shown as Map 73 Lot 30 to a point; thence,

N00°07'21"W 90.24' by the easterly line of parcel shown as Map 73 Lot 30A to the point of beginning.

Parcel III

A certain tract or parcel of land located in Manchester, County of Hillsborough, State of New Hampshire more particularly described as follows:

Beginning at a 1" iron rod with cap set at the northwest corner of the parcel herein described, said point being the intersection of the southerly sideline of Merrimack Street and the easterly sideline of Chestnut Street; thence,

N89°48'41"E along the said line of Merrimack Street 160.00' to a Mag Nail set; thence,

S00°07'21"E 90.24' by a new line and along the westerly line of parcel shown as Map 73 Lot 30–1 to a point in the northerly line of land of the United States of America; thence,

S89°52'46"W 160.00' along the said line of the United State of America to a drill hole set at the easterly sideline of Chestnut Street; thence,

N00°07'21"W along the said line of Chestnut Street 90.05' to the point of beginning.

NOTES:

1) THIS SURVEY HAS BEEN PREPARED IN CONNECTION WITH FIRST AMERICAN TITLE INSURANCE COMPANY COMMITMENT FILE NUMBER 2022–2 DATED FEBRUARY 1, 2022.

2) THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY PERFORMED ON THE GROUND DURING FEBRUARY AND MARCH 2022.

3) BASIS OF BEARING IS NH GRID NORTH. VERTICAL DATUM IS NAVD88. HORIZONTAL DATUM IS NAD83(92).

4) THE SUBJECT PROPERTY IS LOCATED IN THE (CBD) CENTRAL BUSINESS DISTRICT ZONING DISTRICT PER THE CITY OF MANCHESTER ZONING ORDINANCE AS LAST AMENDED SEPTEMBER 7, 2001. THERE ARE NO MINIMUM BUILDING SETBACKS IN SAID ZONE. FINAL INTERPRETATION AND DETERMINATION IS MADE BY THE CITY OF MANCHESTER ZONING OFFICIALS.

5) SUBJECT PREMISES IS LOCATED IN ZONE X AS SHOWN ON FEMA FLOOD INSURANCE RATE MAP FIRM 33011C0377D , EFFECTIVE DATE: SEPTEMBER 25, 2009. FLOOD ZONE X IS NOT A SPECIAL FLOOD HAZARD AREA.

6) THE SUBJECT PREMISES IS SUBJECT TO THE FOLLOWING EXCEPTIONS RECORDED AT THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS AS LISTED IN AND KEYED TO SCHEDULE B – SECTION 2 OF THE ABOVE REFERENCED TITLE COMMITMENT AT NOTE 1:

#7. ALL FACTS, NOTATIONS, EASEMENTS, AND OTHER MATTERS DEPICTED ON THE FOLLOWING PLANS RECORDED AT THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS:

a. "SUBDIVISION AND CONSOLIDATION PLAN FOR CITY OF MANCHESTER TAX MAP 73 LOTS 1 AND 4, 351 CHESTNUT STREET AND 100 MERRIMACK STREET, MANCHESTER N.H." DATED 9/30/2014, REVISED 6/29/2015, RECORDED IN THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS AS PLAN NO. 38525.

b. "SUBDIVISION PLAN FOR CITY OF MANCHESTER TAX MAP 73, LOTS 30 AND 30A, MERRIMACK, CENTRAL & CHESTNUT STREETS, MANCHESTER, NH" DATED SEPTEMBER 30, 2013 AND RECORDED IN THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS AS PLAN NO. 38526.

#8. DEED RESTRICTIONS CONTAINED IN DEED OF CITY OF MANCHESTER TO 351 CHESTNUT STREET, LLC DATED JUNE 30, 2015 AND RECORDED IN THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS AT BOOK 8766, PAGE 2686, INCLUDING:

a. DRIVEWAY AND RAMP EASEMENT OVER A PORTION OF PARCEL I FOR THE USE OF THE DRIVEWAY AND DRIVEWAY RAMPS FOR ALL DRIVEWAY PURPOSES, INCLUDING BUT NOT LIMITED TO VEHICULAR AND PEDESTRIAN ACCESS AND HANDICAP ACCESS TO AND DELIVERIES OF ANY NATURE OR TYPE TO THE FIRE STATION LAND AND BUILDING LOCATED TO THE EAST OF PARCEL I, WHICH EASEMENT SHALL RUN WITH THE LAND;

b. ROOF ENCROACHMENT EASEMENT NO. 1 TO MAINTAIN, REPAIR, REBUILD, REPLACE, CONSTRUCT AND RECONSTRUCT THE WALLS AND RETAINING WALLS OF THE FIRE STATION BUILDING;

c. ROOF ENCROACHMENT EASEMENT NO. 2 OVER PARCEL I FOR THE ROOF OVERHANG, WALKWAY, STAIRS AND FOOTINGS SERVICING OR ARE PART OF THE EXISTING FIRE STATION AND FOR INGRESS AND EGRESS TO OR FROM THE EXISTING FIRE STATION BUILDING USING SAID STAIRS AND WALKWAY;

d. AN ADDITIONAL EASEMENT OVER PARCEL I FOR THE ROOF OVERHANG AND FOOTINGS OF THE EXISTING FIRE STATION;

e. FUEL TANK AND ACCESS EASEMENT OVER PARCEL III RECORDED IN THE SAID REGISTRY AT BOOK 2598, PAGE 454;

f. ACCESS, PARKING AND UTILITY EASEMENT OVER PARCEL III, AND RESTRICTION REGARDING CONSTRUCTION OF PARKING GARAGE, OVER A PORTION OF PARCEL III SHOWN ON PLAN NO. 38526.

#9. EASEMENT TO PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE AND NEW ENGLAND TELEPHONE AND TELEGRAPH COMPANY DATED NOVEMBER 23, 1986 AND RECORDED WITH THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS AT BOOK 3893, PAGE 214.

#10. NOTICE OF GROUNDWATER MANAGEMENT PERMIT DATED JULY 13, 2004 AND RECORDED WITH THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS AT BOOK 7287, PAGE 1661.

7) IN ADDITION, THE SUBJECT PREMISES MAY BE SUBJECT TO AND/OR WITH THE BENEFIT OF THE FOLLOWING:

a) EXCEPTING ANY EXISTING RIGHTS, RESTRICTIONS OR RESERVATIONS AS REFERRED TO IN A DEED FROM MARION C. SMYTH TO THE CITY OF MANCHESTER, DATED JUNE 20, 1914, HILLSBOROUGH COUNTY REGISTRY OF DEEDS BOOK 722 PAGE 447.

b) RESTRICTIONS CONTAINED IN DEED FROM THE MANCHESTER HOUSING AUTHORITY TO THE CITY OF MANCHESTER DATED NOVEMBER 18, 1975, HILLSBOROUGH COUNTY REGISTRY OF DEEDS BOOK 2435 PAGE 764, AS AFFECTED BY CORRECTIVE DEED FROM THE MANCHESTER HOUSING AUTHORITY TO THE CITY OF MANCHESTER DATED MARCH 21, 1978, HILLSBOROUGH COUNTY REGISTRY OF DEEDS BOOK 2598 PAGE 451.

c) RESTRICTIONS CONTAINED IN DEED FROM THE MANCHESTER HOUSING AUTHORITY TO THE CITY OF MANCHESTER DATED MARCH 21, 1978, HILLSBOROUGH COUNTY REGISTRY OF DEEDS BOOK 2598 PAGE 454.

8) UTILITY STRUCTURES AT OR ABOVE THE GROUND SURFACE SHOWN HEREON ARE THOSE THAT HAVE BEEN OBSERVED FROM SURFACE EVIDENCE. UTILITIES BENEATH THE GROUND SURFACE HAVE NOT BEEN OBSERVED AND ARE SHOWN APPROXIMATELY HEREON AS DERIVED FROM A COMBINATION OF SURFACE MARKINGS BY OTHERS AND/OR RECORD INFORMATION AND ARE NOT VERIFIED LOCATIONS OR CONFIRMATION OF EXISTENCE OF SAID UNDERGROUND UTILITIES. ALL UNDERGROUND UTILITIES SHOULD BE LOCATED IN THE FIELD PRIOR TO COMMENCEMENT OF ALL SITE WORK. CALL DIG SAFE 1–888–344–7233 A MINIMUM OF 72 HOURS PRIOR TO PLANNED ACTIVITY.

ALTA CERTIFICATION

TO LINCOLN CAPITAL ACQUISITION, LLC AND THEIR SUCCESSORS AND ASSIGNS; FIRST AMERICAN TITLE INSURANCE COMPANY:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1,2,3,4,6(a)(b),7(a),8,9,13,16, AND 18 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON MARCH 25, 2022.

DATE OF MAP OR PLAT: MARCH 25, 2022.

NH CERTIFICATION:

I HEREBY CERTIFY THAT THIS PLAN IS BASED ON AN ACTUAL GROUND SURVEY PERFORMED BY THIS OFFICE AND THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF, SAID SURVEY MEETS OR EXCEEDS THE MINIMUM PRECISION AND/OR ACCURACY REQUIREMENTS FOR SURVEY CLASSIFICATION "U" AS SET FORTH IN TABLE 500.1 OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS, EFFECTIVE 11/1/16.

DATE: 5-20-2022

GREGORY S. BROWN, LLS #849
For and on Behalf of
Fuss & O'Neill, Inc.

DRAFT

NO.	DATE	REVISION

DRAWN BY: _____

FUSS&O'NEILL
50 COMMERCIAL STREET
MANCHESTER, NEW HAMPSHIRE 03101
603.668.8223
www.fando.com

CLIENT:
LINCOLN AVENUE CAPITAL
401 WILSHIRE BOULEVARD, SUITE 1070
SANTA MONICA, CALIFORNIA 90401

DEED HOLDER:
351 CHESTNUT STREET, LLC
P.O. BOX
CANDIA, NEW HAMPSHIRE 03034
BOOK 8766 PAGE 2686

ALTA/NSPS LAND TITLE SURVEY

TAX MAP 73 LOTS 1, 30A & 31
351 CHESTNUT STREET,
MERRIMACK & PINE STREETS
MANCHESTER, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

PROJ. No.: 20211191.A10
DATE: 03/25/2022
SCALE: 1"=20'

SV-103

SHEET 3 OF 3

EXISTING CONDITIONS PLAN NOTES:

1. REFER TO SHEETS GI-201 THROUGH GI-203 FOR RELATED PLAN NOTES.

GRAPHIC SCALE

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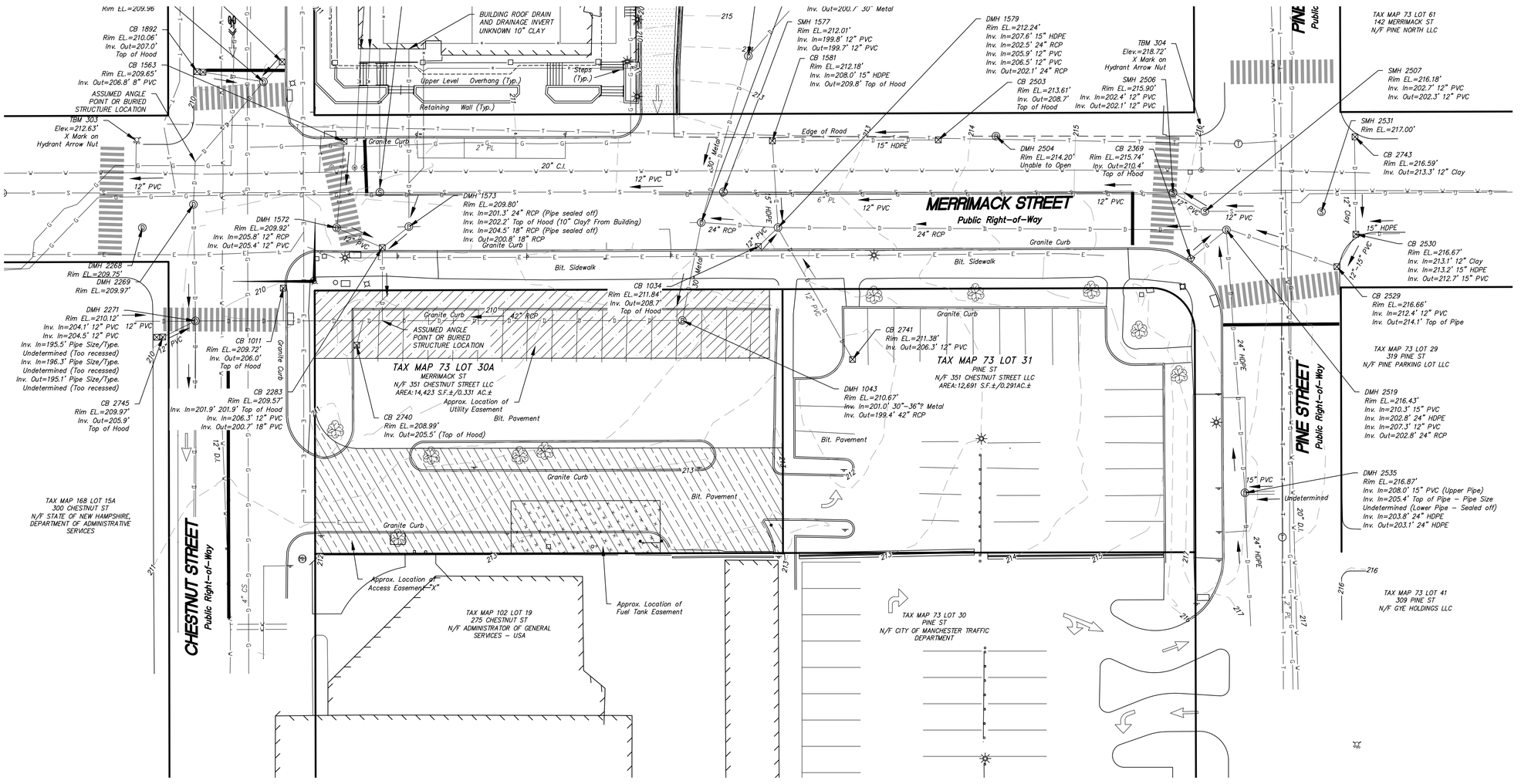
(IN FEET)
1 inch = 20 ft.



No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

STATE OF NEW HAMPSHIRE
RICHARD ALPHONSE DUBOIS III
No. 11921
DRAFT
LICENSED PROFESSIONAL ENGINEER

SCALE: HORZ.: 20 VERT.:
DATUM: HORZ.: NAD83 - NH83 VERT.: NAVD88
0 10 20 GRAPHIC SCALE

FUSS & O'NEILL
50 COMMERCIAL STREET
MANCHESTER, NEW HAMPSHIRE 03101
603.668.8223
www.fando.com

RESIDENCES AT CHESTNUT
BUILDING 2
CIVIL EXISTING CONDITIONS PLAN
TAX MAP 73 LOTS 30A & 31
MERRIMACK STREET
MANCHESTER NEW HAMPSHIRE

PROJ. No.: 20211191.A10
DATE: MAY 2022

EX-201

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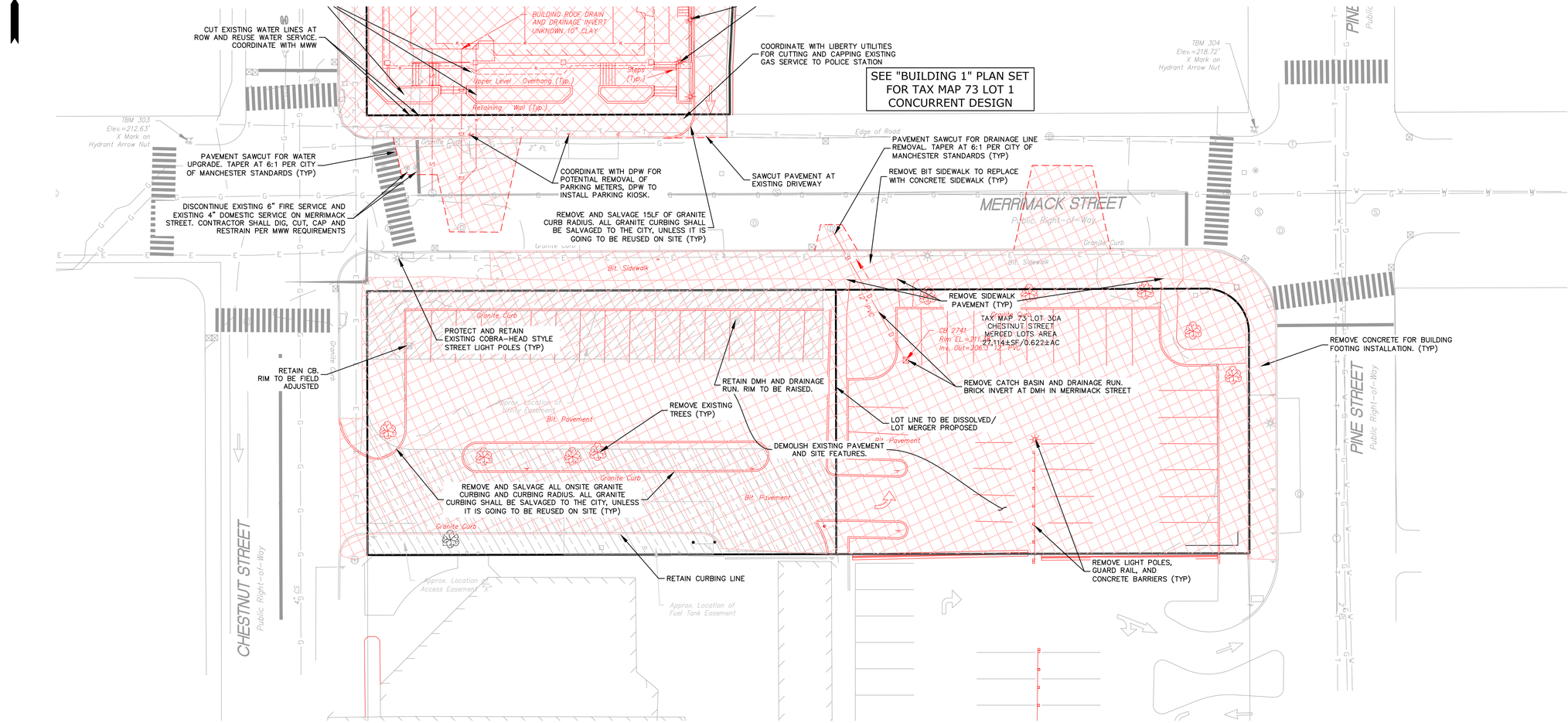
DEMOLITION AND REMOVALS PLAN NOTES:

1. REFER TO SHEETS GI-101 THROUGH GI-103 FOR RELATED PLAN NOTES.



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

STATE OF NEW HAMPSHIRE
ARMAND ALPHONSE DUBOIS III
No. 11921
DRAFT
LICENSED
PROFESSIONAL ENGINEER

SCALE: HORZ.: 20 VERT.: DATUM: HORZ.: VERT.: 20 10 20 GRAPHIC SCALE

FUSS & O'NEILL
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MANCHESTER, NEW HAMPSHIRE 03101
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LINCOLN AVENUE CAPITAL
BUILDNG 2
CIVIL DEMOLITION AND REMOVALS PLAN
TAX MAP 73 LOTS 30A & 31
MERRIMACK STREET
MANCHESTER NEW HAMPSHIRE

PROJ. No.: 20211191.A10
DATE: MAY 2022

CC-201

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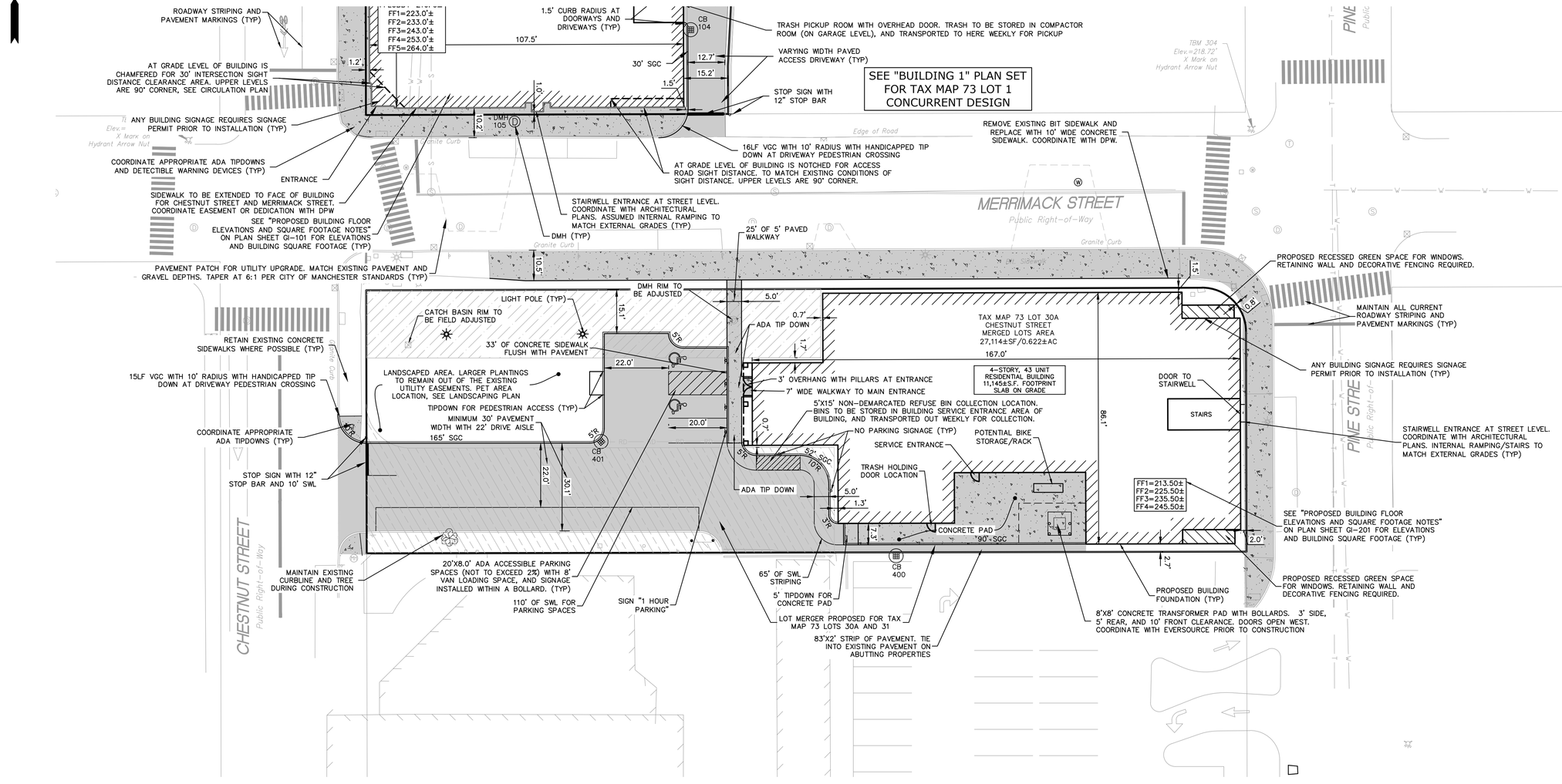
SITE PLAN NOTES:

1. REFER TO SHEETS GI-201 THROUGH GI-203 FOR RELATED PLAN NOTES.



GRAPHIC SCALE

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(IN FEET)
1 inch = 20 ft.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

STATE OF NEW HAMPSHIRE
ALPHONSE DUBOIS III
No. 11921
DRAFT
LICENSED
PROFESSIONAL ENGINEER

SCALE: HORZ.: 20 VERT.: 20
DATUM: HORZ.: 20 10 0 20 GRAPHIC SCALE
VERT.:

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LINCOLN AVENUE CAPITAL
BUILDING 2

CIVIL SITE PLAN

TAX MAP 73 LOTS 30A & 31
MERRIMACK STREET
MANCHESTER
NEW HAMPSHIRE

PROJ. No.: 20211191.A10
DATE: MAY 2022

CS-201

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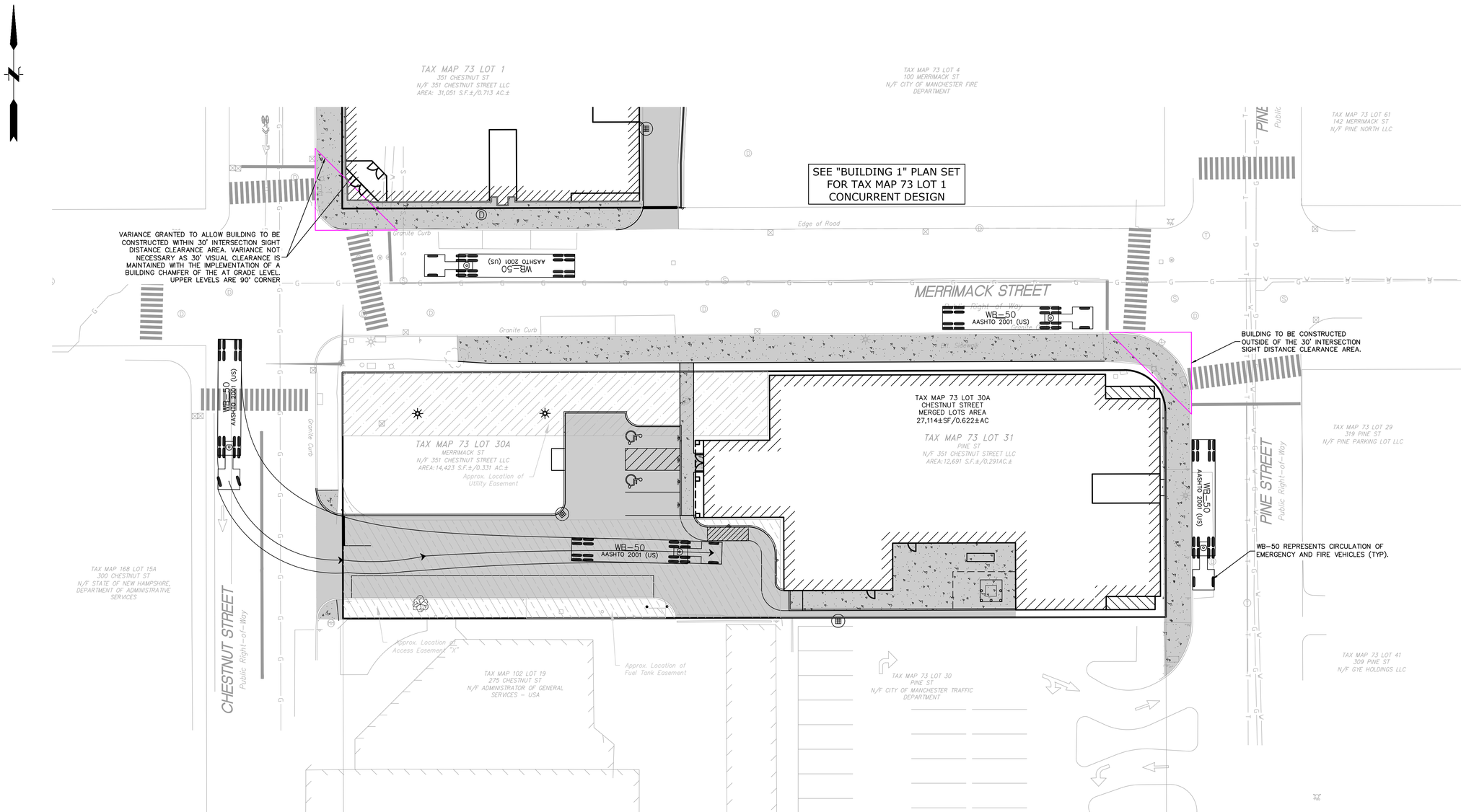
SITE CIRCULATION PLAN NOTES:

1. REFER TO SHEETS GI-201 THROUGH GI-203 FOR RELATED PLAN NOTES.



GRAPHIC SCALE

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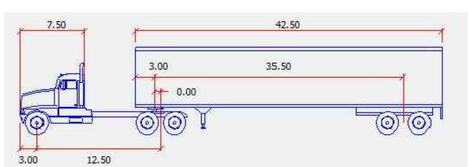
(IN FEET)
1 inch = 20 ft.



WB-50

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

STATE OF NEW HAMPSHIRE
ARMAND ALPHONSE DUBOIS III
No. 11921
DRAFT
LICENSED
PROFESSIONAL ENGINEER

SCALE: HORZ.: 20 VERT.:
DATUM: HORZ.: VERT.:
20 10 20 GRAPHIC SCALE

FUSS & O'NEILL
50 COMMERCIAL STREET
MANCHESTER, NEW HAMPSHIRE 03101
603.668.8223
www.fando.com

LINCOLN AVENUE CAPITAL
BUILDING 2
CIVIL TRAFFIC
CIRCULATION PLAN
TAX MAP 73 LOTS 30A & 31
MERRIMACK STREET
MANCHESTER NEW HAMPSHIRE

PROJ. No.: 20211191.A10
DATE: MAY 2022

CT-201

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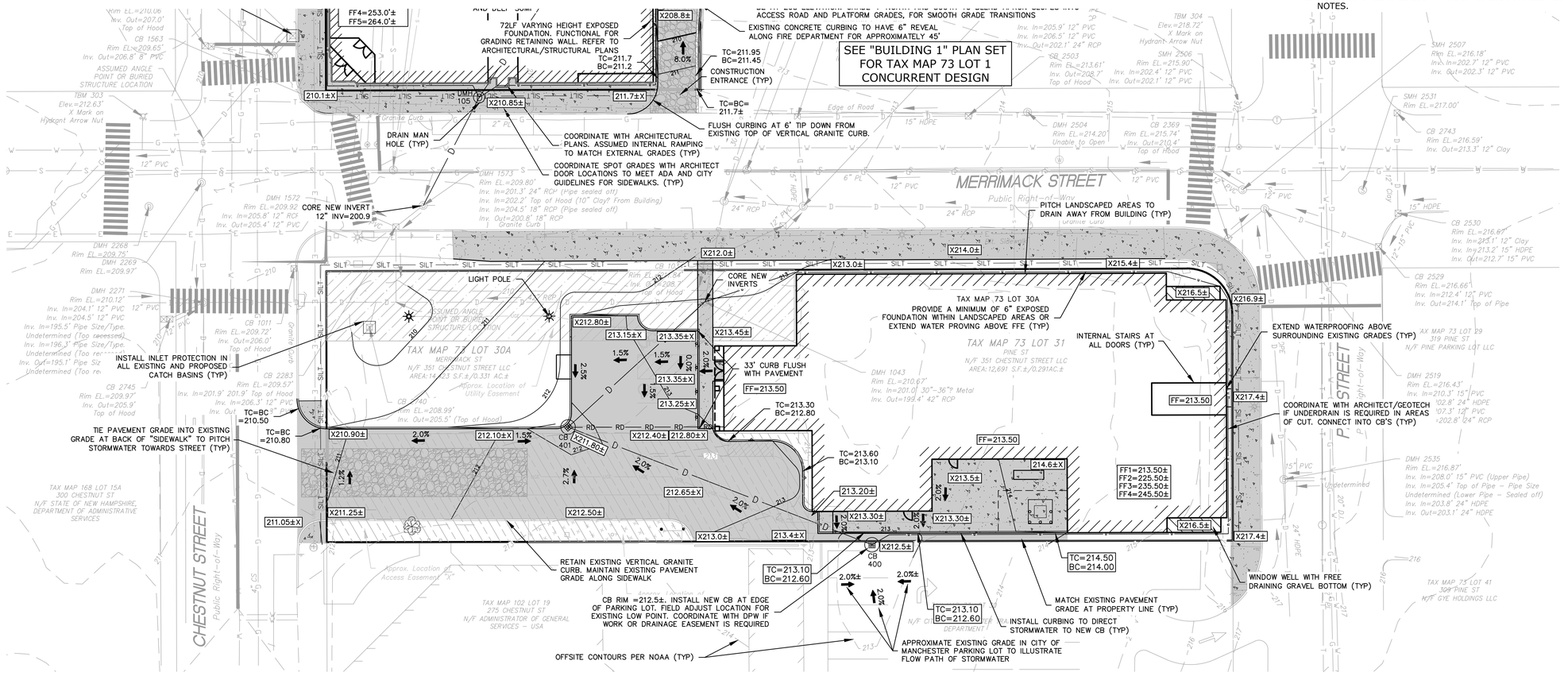
GRADING, DRAINAGE, AND EROSION CONTROL PLAN NOTES:

1. REFER TO SHEETS GI-201 THROUGH GI-203 FOR RELATED PLAN NOTES.



PROPOSED DRAINAGE STRUCTURE SCHEDULE FOR BUILDING 2:

DMH 1043
RIM ELEV.=210.67'
INV. IN=201.0' 30"-36" METAL
CORE NEW INV. IN (18" HDPE) = 205.95' (CB 401)
CORE NEW INV. IN (6" UNDERDRAIN) = 208.00'±
COORDINATE WITH CONTRACTOR
INV. OUT=199.4' (42" RCP-EXISTING)

CB 2740
EXISTING RIM ELEV.=208.99'
FIELD ADJUST RIM TO GRADE TO DRAIN (AS NECESSARY)
INV. OUT=205.5' (TOP OF HOOD)

CB 400 - DOUBLE GRATE CB
RIM ELEV. = 212.50'
INV.IN (6" HDPE) = 207.90' (UNDERDRAIN-MATCH CROWNS)
INV.OUT (18" HDPE) = 206.90' (CB 401)
L = 104', 18" HDPE, S = 0.005

CB 401
RIM ELEV. = 212.50'
INV.IN (12" HDPE) = 206.85' (ROOF DRAINS-MATCH CROWNS)
INV.IN (18" HDPE) = 206.35' (CB 400)
INV.OUT (18" HDPE) = 206.25' (DMH 1043)
L = 58', 18" HDPE, S = 0.005

DRAINAGE SCHEDULE NOTES:
SEE GENERAL NOTES PLAN SHEETS FOR ADDITIONAL NOTES AND INFORMATION

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

STATE OF NEW HAMPSHIRE
RICHARD ALPHONSE DUBOIS III
No. 11921
DRAFT
LICENSED
PROFESSIONAL ENGINEER

SCALE: HORZ.: 20 VERT.:
DATUM: HORZ.: VERT.:
20 10 20
GRAPHIC SCALE

FUSS&O'NEILL
50 COMMERCIAL STREET
MANCHESTER, NEW HAMPSHIRE 03101
603.668.8223
www.fando.com

LINCOLN AVENUE CAPITAL
BUILDING 2
CIVIL GRADING, DRAINAGE, AND EROSION CONTROL PLAN
TAX MAP 73 LOTS 30A & 31
MERRIMACK STREET
MANCHESTER NEW HAMPSHIRE

PROJ. No.: 20211191.A10
DATE: MAY 2022

CG-201

File: J:\DWG\P2021\11191A\10\Civil\Plan\20211191.A10_STP01.dwg Layout: CGE-201 Plotted: 2022-05-26 1:11 PM Saved: 2022-05-26 1:05 PM User: adubois
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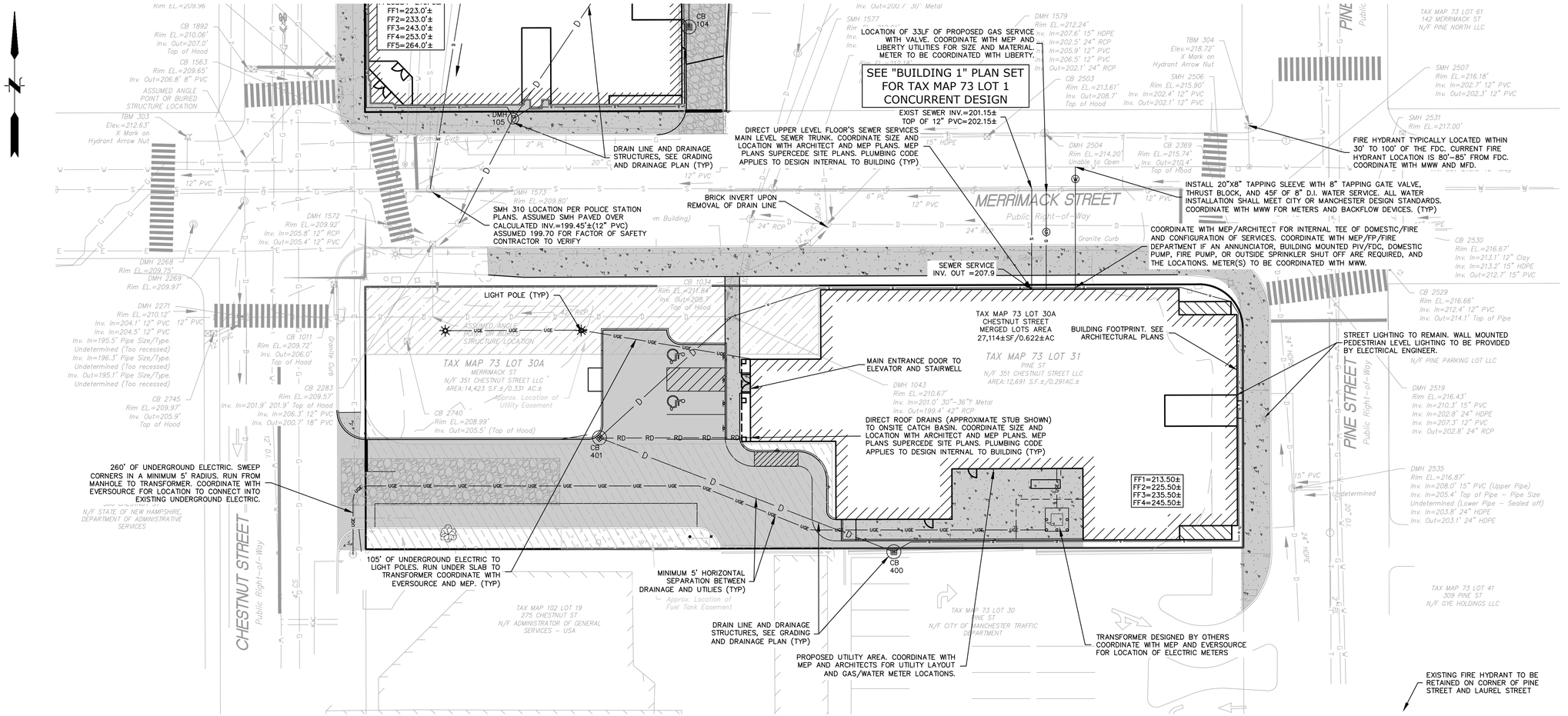
UTILITY PLAN NOTES:

1. REFER TO SHEETS GI-201 THROUGH GI-203 FOR RELATED PLAN NOTES.



PROPOSED SEWER STRUCTURE SCHEDULE FOR BOTH BUILDING 1 AND BUILDING 2:

DMH 201 - OIL WATER SEPARATOR FOR GARAGE. SEE PROPOSED DRAINAGE STRUCTURE SCHEDULE

SMH 300
RIM ELEV. = 205.6'
INV.IN (8" PVC) = 201.10' UPPER LEVEL SPURS
INV.OUT (8" PVC) = 201.00' (SMH 301)
L = 51', 8" PVC, S = 0.005

SMH 301
RIM ELEV. = 206.0'
INV.IN (8" PVC) = 200.70' (SMH 300)
INV.IN (8" HDPE) = 200.70' (DMH 201-OWS)
INV.OUT (8" PVC) = 200.60' (SMH 302)
L = 61', 8" PVC, S = 0.005

SMH 302
RIM ELEV. = 205.55'
INV.IN (8" PVC) = 200.30' (SMH 301)
INV.IN (8" PVC) = 200.30' UPPER LEVEL SPURS
INV.OUT (8" PVC) = 200.20' (SMH 310-SEE NOTE THIS PAGE)
L = 96', 8" PVC, S = 0.005

BUILDING #1 INVERT = 199.85'
L = 30', 8" PVC, S = 0.005

BUILDING #2 INVERT = 202.35'
L = 35', 8" PVC, S = 0.005
WYE INTO EXISTING 12" AT 45°

SMH 310
LOCATION APPROXIMATE, ASSUMED PAVED OVER
LOCATION PER POLICE STATION PLANS
UTILIZE EXISTING SERVICE, REPLACE PIPE AS NECESSARY, COORDINATE WITH DPW.
CALCULATED INV.=199.45'± (EXIST 8" CLAY)
ASSUME INV. =199.70' (FACTOR OF SAFETY)
CONTRACTOR TO VERIFY LOCATION AND INVERT

SEWER SCHEDULE NOTES:

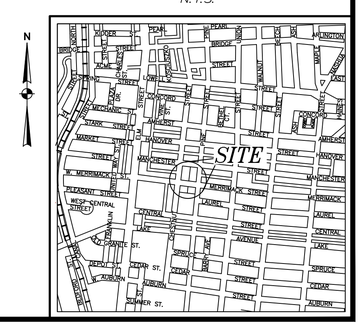
1. MINIMUM 6.0' COVER OVER ALL SEWER LINES AND SEWER SERVICES.
2. IN AREAS WITH LESS THAN 6' COVER, INSTALL 2" THICK X 5' WIDE BLUEBOARD INSULATION ABOVE SEWER LINE.
3. REFER TO DETAILS SHEET FOR STRUCTURE AND PIPE RUN DETAILS.
4. INSTALL CLEANOUTS AT ALL VERTICAL AND HORIZONTAL BENDS AND A MAXIMUM OF EVERY 75'.
5. SEE GENERAL NOTES PLAN SHEETS FOR ADDITIONAL NOTES AND INFORMATION

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

LOCUS
N.T.S.



No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

STATE OF NEW HAMPSHIRE
RICHARD ALPHONSE DUBOIS III
No. 11921
DRAFT
LICENSED
PROFESSIONAL ENGINEER

SCALE: HORZ.: 20 VERT.:
DATUM: HORZ.: VERT.:
20 10 0 20 40
GRAPHIC SCALE

FUSS&O'NEILL
50 COMMERCIAL STREET
MANCHESTER, NEW HAMPSHIRE 03101
603.668.8223
www.fuss-oneill.com

LINCOLN AVENUE CAPITAL
BUILDING 2
CIVIL UTILITY PLAN
TAX MAP 73 LOTS 30A & 31
MERRIMACK STREET
MANCHESTER NEW HAMPSHIRE

PROJ. No.: 20211191.A10
DATE: MAY 2022

CU-201

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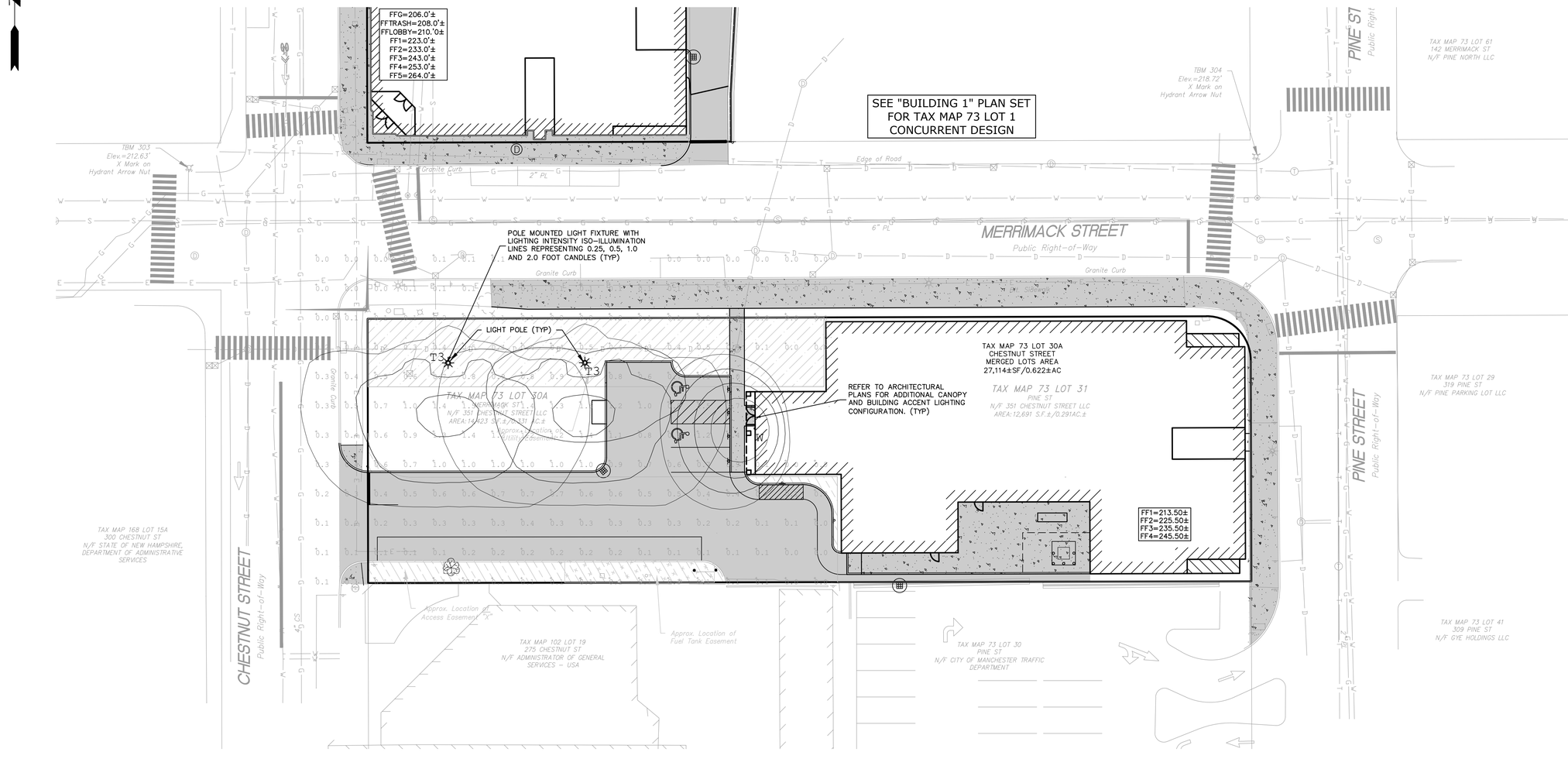
UTILITY LIGHTING PLAN NOTES:

1. REFER TO SHEETS GI-201 THROUGH GI-203 FOR RELATED PLAN NOTES.



Luminaire Schedule				
Symbol	Qty	Label	Arrangement	Description
⊙	2	T3	Single	BW21Q-D-1X37-U-3K-BK / PLB414-4-12-S-125-T300-N-BK
⊡	1	W	Single	AXCS2A-W / WALL MTD 15' AFG

Illuminance (Fc)
Average = 1.16
Maximum = 3.7
Minimum = 0.3
Avg/Min Ratio = 3.87
Max/Min Ratio = 12.33

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
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No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

STATE OF NEW HAMPSHIRE
ARMAND ALPHONSE DUBOIS III
No. 11921
DRAFT
LICENSED
PROFESSIONAL ENGINEER

SCALE: HORZ.: 20 VERT.: 20
DATUM: HORZ.: VERT.: 20 10 20
GRAPHIC SCALE

FUSS & O'NEILL
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MANCHESTER, NEW HAMPSHIRE 03101
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LINCOLN AVENUE CAPITAL
BUILDING 2
CIVIL UTILITY
LIGHTING PLAN
TAX MAP 73 LOTS 30A & 31
MERRIMACK STREET
MANCHESTER NEW HAMPSHIRE

PROJ. No.: 20211191.A10
DATE: MAY 2022

CU-202

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TABLE OF LANDSCAPE REGULATIONS

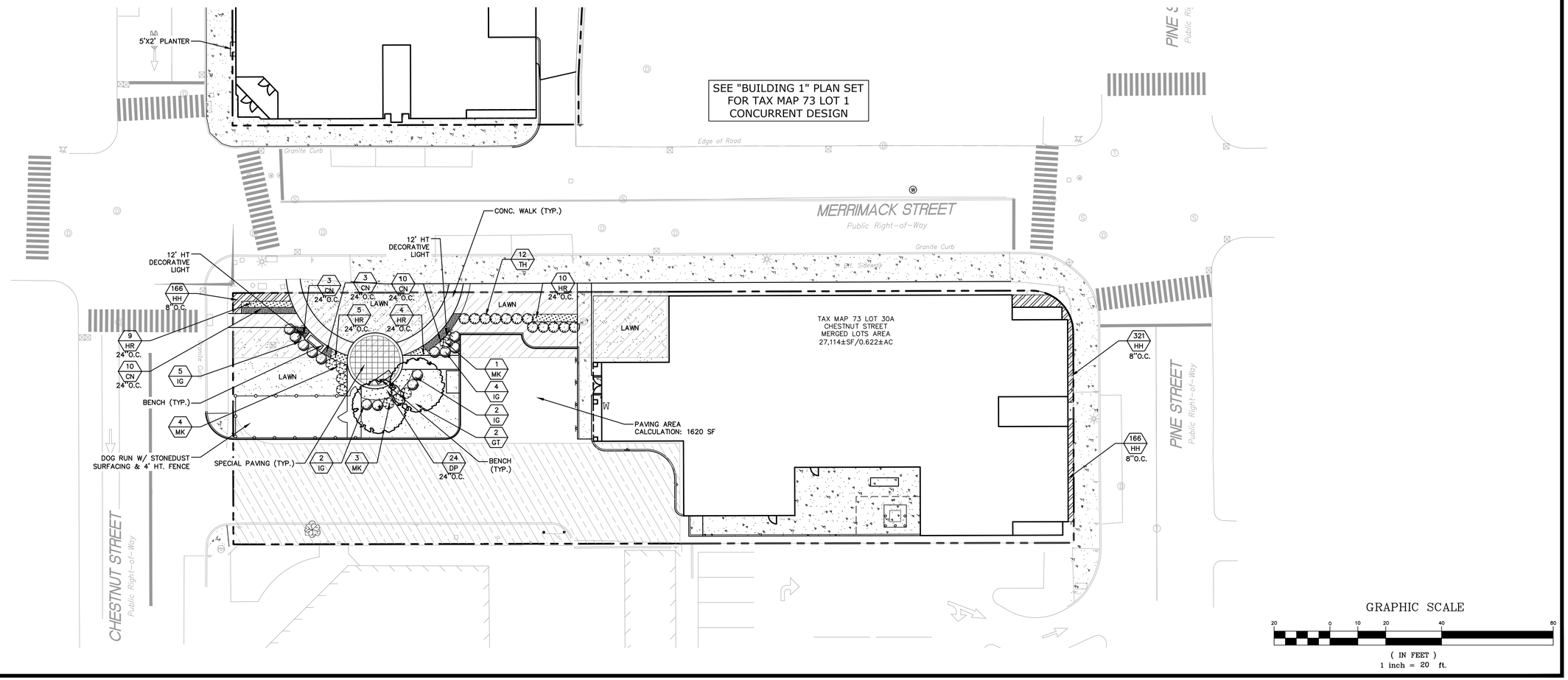
SECTION	DESCRIPTION	REQUIRED	PROVIDED
8.3	ON-SITE PAVING. ALL PAVED AREAS SHALL HAVE A MINIMUM OF ONE DECIDUOUS SHADE TREE, AS DEFINED ABOVE, FOR EACH 900 SQUARE FEET OF THE FIRST 3600 SQUARE FEET DEVOTED TO PAVING AND ONE TREE 2000 SQUARE FEET OF PAVING AREA THEREAFTER. TREE SHALL BE A MINIMUM OF 3" CALIPER AT ONE FOOT ABOVE THE ROOT CROWN. TREES SHALL BE COMPLEMENTED WITH SUITABLE GROUND COVER FOR PROTECTION FROM SOIL EROSION. LINEAR PLANTING BEDS BETWEEN PARKING BAYS SHOULD BE INCORPORATED WHENEVER PRACTICABLE. SAID PLANTING BEDS MUST BE ELEVATED AT LEAST FOUR(4) INCHES ABOVE THE PARKING SURFACE WITH GRANITE CURBING AND BE GRADED TO ALLOW FOR PROPER DRAINAGE. PLANTING BEDS SHALL BE PLANTED WITH SUITABLE MATERIAL FROM APPENDIX E AND WILL BE MULCHED WITH NO LESS THAN THREE(3) INCHES OF ORGANIC MATERIALS.	1620 SF/900 = 1.8 OR 2 TREES	2 TREES @ 3" CALIPER

PLANTING NOTES:

1. ALL PLANTING MATERIAL TO BE NURSERY GROWN STOCK SUBJECT TO A.A.N. STANDARDS
2. THE CONTRACTOR SHALL SUPPLY ALL PLANTS IN QUANTITIES SUFFICIENT TO COMPLETE THE WORK SHOWN ON THE DRAWINGS AND LISTED IN THE PLANT LIST. IN THE EVENT OF A DISCREPANCY BETWEEN QUANTITIES SHOWN IN THE PLANT LIST AND THOSE REQUIRED BY THE DRAWINGS, THE LARGER NUMBER SHALL APPLY.
3. PRECISE LOCATION OF ITEMS NOT DIMENSIONED ON THE PLAN ARE TO BE FIELD STAKED BY THE CONTRACTOR AND SHALL BE SUBJECT TO THE REQUIREMENTS SPECIFIED IN THE PREVIOUS NOTE.
4. ALL SHRUB MASSINGS AND TREE PITS SHALL BE MULCHED TO A DEPTH OF 3" WITH SHREDDED PINE BARK MULCH.
5. TREES SHALL NOT BE STAKED UNLESS OTHERWISE NOTED.
6. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGED VEGETATION AND SHALL REPLACE OR REPAIR ANY DAMAGED MATERIAL, AT HIS OWN EXPENSE. THE CONTRACTOR SHALL CONTACT DIG SAFE AT 811 OR 888-344-7233 PRIOR TO CONSTRUCTION.
7. ALL SHRUB AND GROUNDCOVER PLANTING AREAS SHALL HAVE CONTINUOUS BEDS OF TOPSOIL 12" DEEP. ALL SOD AND HYDROSEED AREAS SHALL HAVE A MINIMUM TOPSOIL BED OF 6".
8. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES IN THE FIELD. WHERE PLANT MATERIAL MAY INTERFERE WITH UTILITIES, THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT TO COORDINATE THEIR INSTALLATION.
9. ALL EXISTING RILL, GULLY OR CHANNEL EROSION SHALL BE FILLED WITH APPROPRIATE BACKFILL MATERIAL, FINE RAKED, SCARIFIED AND STABILIZED WITH APPROPRIATE VEGETATIVE MATERIAL AND / OR APPROPRIATE SEDIMENTATION AND EROSION CONTROL MEASURES.
10. ADJUSTMENTS IN THE LOCATION OF THE PROPOSED PLANT MATERIAL AS A RESULT OF EXISTING VEGETATION TO REMAIN SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
11. THE CONTRACTOR IS RESPONSIBLE FOR ALL MAINTENANCE REPAIR AND REPLACEMENT OF PLANT MATERIAL, AS REQUIRED, FOR THE DURATION OF THE PROJECT AND SUBSEQUENT WARRANTY PERIOD.
12. PLANTINGS INSTALLED IN THE DRY SUMMER MONTHS AND / OR LAWN SEEDED OUT OF SPRING OR FALL PERIODS, IF ALLOWED BY OWNER, WILL REQUIRE AGGRESSIVE IRRIGATION PROGRAMS AT THE CONTRACTOR'S EXPENSE, UNLESS OTHERWISE DIRECTED BY THE OWNER.
13. UPON COMPLETION OF PLANTING, REMOVE FROM SITE ALL EXCESS SOIL, MULCH, AND MATERIALS AND DEBRIS RESULTING FROM WORK OPERATIONS. CLEAN UP SHOULD BE COMPLETED AT THE END OF EACH WORKING DAY. RESTORE TO ORIGINAL CONDITIONS ALL DAMAGED PAVEMENTS, PLANTING AREAS, STRUCTURES AND LAWN AREAS RESULTING FROM LANDSCAPING OPERATIONS.
14. CONTRACTOR SHALL SURVEY, LOCATE, AND PROTECT ALL TREES WITHIN AREAS SHOWN AS "EXISTING VEGETATION TO REMAIN" WITHIN THE DEVELOPMENT ENVELOPE FOR REVIEW BY L.A. PRIOR TO CLEARING OPERATIONS.
15. CONTRACTOR TO RESEED ALL DISTURBED AREAS.

LANDSCAPE SCHEDULE

KEY	BOTANICAL NAME	COMMON NAME	QTY.	SIZE
TREES				
GT	GLEDITSIA TRIACANTHOS 'INERMIS'	HONEYLOCUST	2	2½-3 " CAL
SHRUBS				
TH	TAXUS X MEDIA 'HICKSII'	HICKS'S YEW	12	5 GAL.
IG	ILEX GLABRA 'COMPACTA'	INKBERRY	13	2-3' HT
MK	SYRINGA 'MISS KIM'	MISS KIM LILAC	8	2-3' HT
PERENNIALS AND GRASSES				
HH	HEDERA HELIX 'BALTICA'	BALTIC IVY	653	4" POTS
DP	DENNSTAEDTIA PUNCTILOBULA	HAY-SCENTED FERN	24	1 GAL.
HR	HEMEROCALLIS 'HAPPY RETURNS'	DAYLILY	28	1 GAL.
CN	NEPETA CATERIA	CATNIP	26	1 GAL.



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

PLANS UNDER DESIGN DEVELOPMENT. ISSUED FOR INTERIM REVIEW ONLY. NOT FOR CONSTRUCTION

SCALE: HORZ.: 20 VERT.: DATUM: HORZ.: VERT.: 20 10 20 GRAPHIC SCALE

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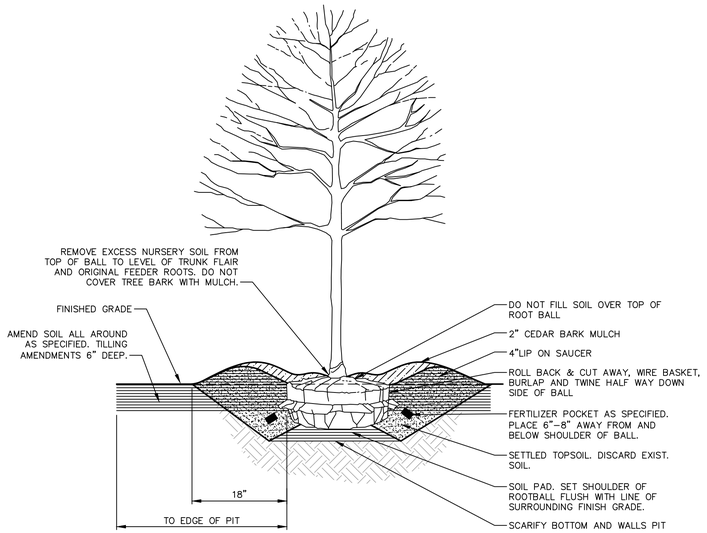
LINCOLN AVENUE CAPITAL
BUILDING 2
LANDSCAPE
PLANTING PLAN
TAX MAP 73 LOTS 30A & 31
MERRIMACK STREET
MANCHESTER NEW HAMPSHIRE

PROJ. No.: 20211191.A10
DATE: MAY 2022

LP-201

File: J:\DWG\P2021\1191\A10\Civil\Plan\20211191.A10_LND01.dwg Layout: LP-201 Plotted: 2022-05-31 8:51 AM Saved: 2022-05-26 3:11 PM User: MHuang

MS VIEW: | LAYER STATE: | MAY 2022

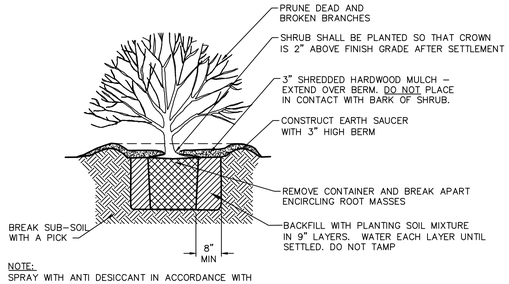


NOTES

1. REPORT POORLY DRAINING SOIL CONDITIONS TO ARCHITECT FOR HIS DIRECTION PRIOR TO PREPARATION AND PLANTING.
2. NO STOCK WRAPPED AND TIED WITH PLASTIC, PRESERVED OR NON–BIODEGRADABLE MATERIALS IS TO BE INSTALLED ON THIS JOB. REMOVE SUCH MATERIALS COMPLETELY.
3. SCARIFY ROOTBALLS OF CONTAINER STOCK BEFORE PLANTING.
4. PRUNE AS SPECIFIED AND DIRECTED BY ARCHITECT.
5. APPLY BIOSTIMULANT, WATER, MULCH, WRAP AND GUY WITHOUT DELAY.

TYPICAL TREE PIT PLANTING

Scale: N.T.S.



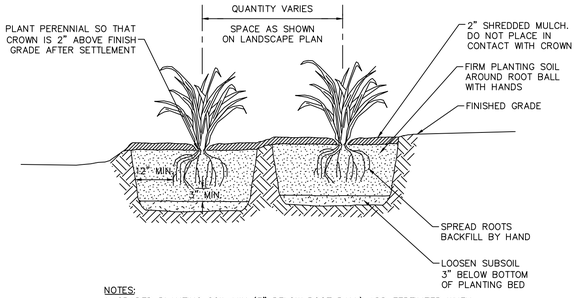
NOTE:
SPRAY WITH ANTI DESICCANT IN ACCORDANCE WITH MFG.'S RECOMMENDATIONS IF FOLIAGE IS PRESENT.

FOR CONTAINER GROWN SHRUBS, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER.

INCORPORATE COMMERCIALLY PREPARED MYCORRHIZA SPORES IN THE SOIL IMMEDIATELY AROUND THE ROOT BALL AT RATES SPECIFIED BY THE MANUFACTURER.

SHRUB PLANTING FOR CONTAINERIZED SHRUBS

Scale: N.T.S.



NOTES:
1. SPADED PLANTING SOIL MIX (3" BELOW ROOT BALL) ADD FERTILIZER WHEN MIXING. DO NOT COMPACT AFTER PLANTING.
2. WATER THOROUGHLY AFTER PLANTING.
3. PROVIDE WELL DRAINING SUBSOIL WHEN SOIL IS HEAVY OR COMPACTED.
4. FOR CONTAINER GROWN PLANTS, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER.

PERENNIAL PLANT BED

Scale: N.T.S.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

STATE OF NEW HAMPSHIRE – PROFESSIONAL ENGINEER – ARMAND ALPHONSE DUBOIS III No. 11921 LICENSED DRAFT

SCALE: HORZ.: N/A VERT.: N/A
DATUM: HORZ.: VERT.: NAVD88
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RESIDENCES AT CHESTNUT
BUILDING 2

LANDSCAPE DETAILS

TAX MAP 73 LOTS 30A & 31
MERRIMACK STREET
MANCHESTER NEW HAMPSHIRE

PROJ. No.: 20211191.A10
DATE: MAY 2022

LS-203

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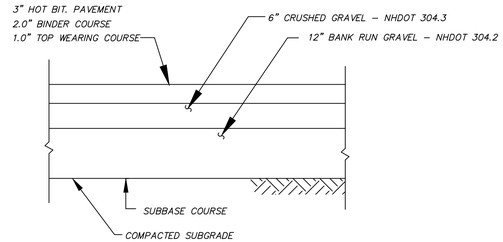
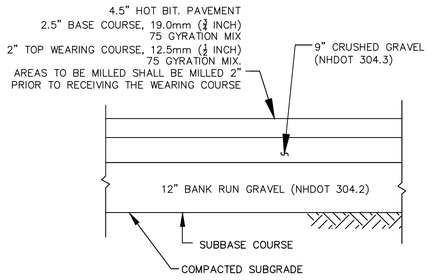


Pavement Section For Parking Lots & Driveways

N.T.S.



Pavement Section For City Streets

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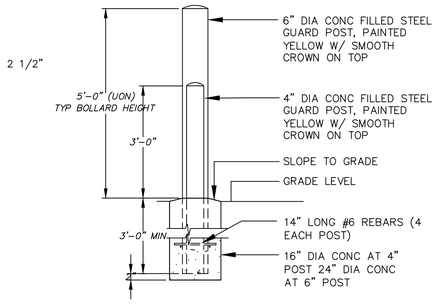
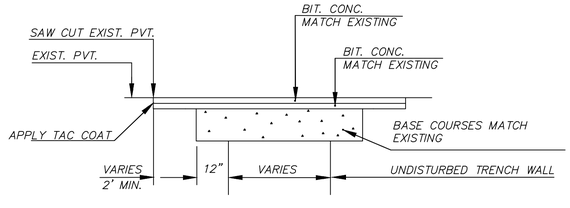


BOLLARD DETAIL

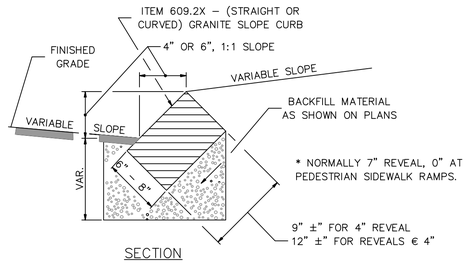
N.T.S.



NOTE: FINAL WEARING COURSE SHALL BE DIAMOND SHAPED

5 / 02740 Pavement Patch Without Overlay

N.T.S.



SECTION

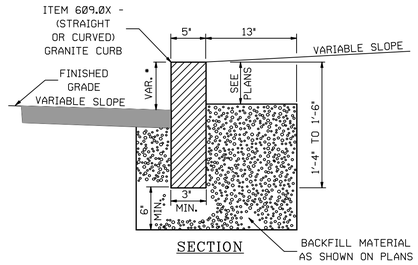
RADIUS FOR STONES WITH SQUARE JOINTS	MAXIMUM LENGTH
< 2'	USE CURVED CURB
2' – 15'	USE RADIAL JOINTS
16' – 28'	1'-6"
29' – 41'	2'
42' – 55'	3'
56' – 68'	4'
69' – 82'	5'
83' – 96'	6'
97' – 110'	7'
OVER 110'	8'

NOTES: ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.

MINIMUM LENGTH OF STRAIGHT CURB STONES = 18"
MAXIMUM LENGTH OF STRAIGHT CURB STONES = 8'
MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES – SEE CHART

NOTES:
1. REFER TO NHDOT STANDARD PLAN CR-1 FOR ADDITIONAL INFORMATION.

NHDOT Granite Curb



SECTION

• NORMALLY 7" REVEAL, 0" AT PEDESTRIAN SIDEWALK RAMPS.

RADIUS	MAX. LENGTH
< 21'	USE CURVED CURB
21'	3'
22' - 28'	4'
29' - 35'	5'
36' - 42'	6'
43' - 49'	7'
50' - 56'	8'
57' - 60'	9'
OVER 60'	10'

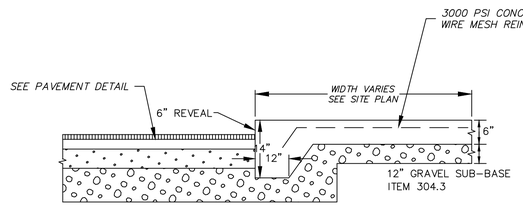
NOTE: ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.

MINIMUM LENGTH OF STRAIGHT CURB STONES = 3'
MAXIMUM LENGTH OF STRAIGHT CURB STONES = 10'
MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES - SEE CHART

NOTES:
1. REFER TO NHDOT STANDARD PLAN CR-1 FOR ADDITIONAL INFORMATION.

NHDOT Granite Curb

N.T.S.



Integral Curb & Sidewalk

N.T.S.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

STATE OF NEW HAMPSHIRE – ARMAND ALPHONSE DUBOIS III No. 11921 DRAFT LICENSED PROFESSIONAL ENGINEER

SCALE: HORZ.: VERT.: DATUM: HORZ.: NAVD88 VERT.: 0 GRAPHIC SCALE

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50 COMMERCIAL STREET
MANCHESTER, NEW HAMPSHIRE 03101
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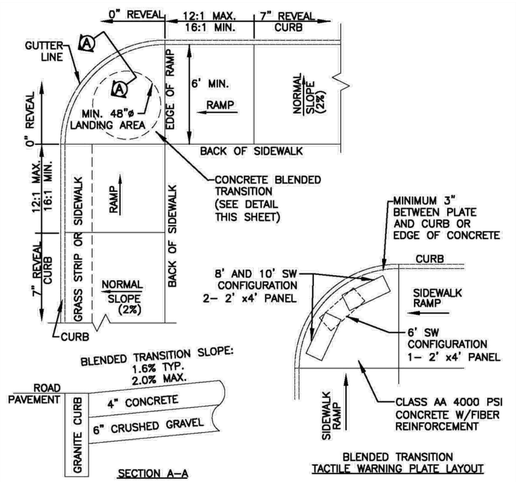
RESIDENCES AT CHESTNUT
BUILDING 2
CIVIL DETAILS
ROADWAY, SITE, & PAVEMENT
TAX MAP 73 LOTS 30A & 31
MERRIMACK STREET
MANCHESTER NEW HAMPSHIRE

PROJ. No.: 20211191.A10
DATE: MAY 2022

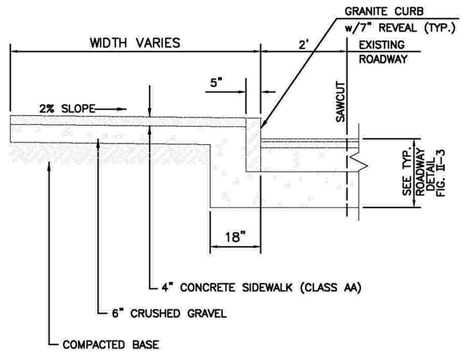
CD-521



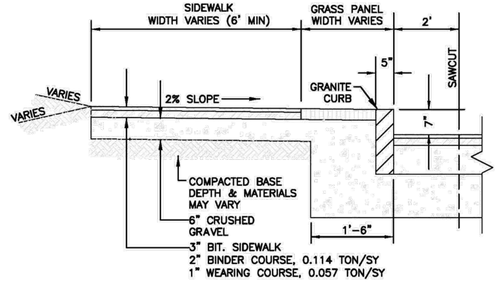
1. SLOPE OF RAMP VARIES WITH SIDEWALK WIDTH AND HEIGHT, WITH A MAXIMUM SLOPE OF 12:1 AND MINIMUM SLOPE OF 16:1.
2. A BROOM FINISH PARALLEL TO THE TACTILE WARNING PLATE SHALL BE USED ON PORTLAND CEMENT CONCRETE RAMPS.
3. INTERCEPT DRAINAGE ALONG THE CURB IN ADVANCE OF THE BLENDED TRANSITION.
4. MAINTAIN 0" OF CURB REVEAL AT THE BLENDED TRANSITION. (SEE SECTION A–A)
5. A MINIMUM OF 5 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (IE. HYDRANTS, UTILITY POLES, SIGNS, ETC.)
6. FOR PURPOSES OF THE TACTILE PLATE LAYOUT, THE WIDTH OF THE SIDEWALK (SW) SHALL BE CONSIDERED THE WIDTH INCLUDING THE GRASS PANEL.

Corner Sidewalk Ramp

N.T.S.



Concrete Sidewalk Detail

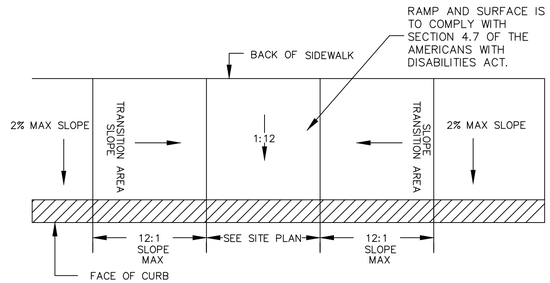


1. ALL PROPOSED NEW ROADWAYS SHALL USE A 6 FOOT SIDEWALK AND 4 FOOT GRASS PANEL CONFIGURATION.
2. LIGHT POLES AND MAILBOXES SHALL BE PLACED IN GRASS PANEL AREA. WHEN GRASS PANEL DOES NOT EXIST, THE WIDTH OF SIDEWALK BEHIND THE STRUCTURE SHALL NOT BE LESS THAN 5 FEET.
3. DEPENDING ON RIGHT OF WAY CONSTRAINTS AND OTHER LOCAL CONDITIONS, GRASS PANEL MAY BE REDUCED OR ELIMINATED, FINAL DETERMINATION TO BE MADE BY THE ENGINEER.
4. BINDER AND WEARING COURSES SHALL CONFORM TO MIX FORMULAS OUTLINED IN SECTION 608 OF THE STANDARD SPECIFICATIONS.

BITUMINOUS SIDEWALK

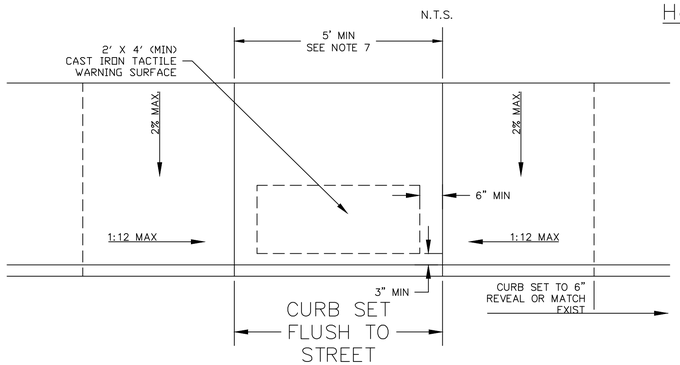
G:\DWG\DETAILS\Streets–Sidewalks\608–1 SIDEWALK.DWG

NOT TO SCALE
FIGURE 608–1



Handicap Sidewalk Ramp

N.T.S.



DETAIL PLACEMENT OF TACTILE SURFACE

1. SLOPE OF RAMP VARIES WITH SIDEWALK WIDTH AND HEIGHT, WITH A MAXIMUM SLOPE OF 12:1 AND MINIMUM SLOPE OF 16:1
2. A BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP SHALL BE USED ON PORTLAND CEMENT CONCRETE RAMPS
3. MAINTAIN THE NORMAL GUTTER PROFILE THROUGH THE RAMP AREA
4. INTERCEPT DRAINAGE ALONG THE CURB IN ADVANCE OF THE RAMP
5. MAINTAIN 0" OF CURB REVEAL AT THE RAMP
6. A MINIMUM OF 4 FEET CLEAR SHALL BE MAINTAINED BY ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (IE. HYDRANTS, UTILITY POLES, SIGNS, ETC.)
7. A WIDTH OF LESS THAN 5 FEET MAY BE PERMISSIBLE AT THE CITY'S DISCRESSION. DIMENSIONS THAT DO NOT COMPLY WITH ADA TITLE III REGULATIONS WILL NOT BE ALLOWED
8. CROSS SLOPE WITHIN ACCESSIBLE ROUTE SHALL NOT EXCEED 2%

TYPICAL SIDEWALK RAMP

File Path: J:\DWG\P20211191\A10\Civil\Plan\20211191.A10_DTLS01-MERRIMACK BLDG2_1_23193_037f871d.sv$.dwg Layout: CD-522 Plotted: Wed, May 25, 2022 - 12:38 PM User: adubois
Plotter: DWG TO PDF.PC3 CTB File: FO.STB
LAYER STATE:
MS VIEW:

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

STATE OF NEW HAMPSHIRE
ARMAND ALPHONSE DUBOIS III
No. 11921
DRAFT
LICENSED
PROFESSIONAL ENGINEER

SCALE: HORZ.: VERT.: GRAPHIC SCALE 0
DATUM: HORZ.: NAD83 VERT.: NAVD88

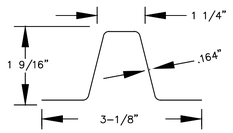
FUSS&O'NEILL
50 COMMERCIAL STREET
MANCHESTER, NEW HAMPSHIRE 03101
603.668.8223
www.fussoneill.com

RESIDENCES AT CHESTNUT
BUILDING 2
CIVIL DETAILS
SIDEWALK AND SITE
TAX MAP 73 LOTS 30A & 31
MERRIMACK STREET
MANCHESTER NEW HAMPSHIRE

PROJ. No.: 20211191.A10
DATE: MAY 2022

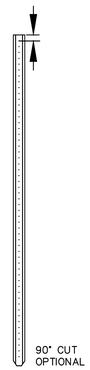
CD-522

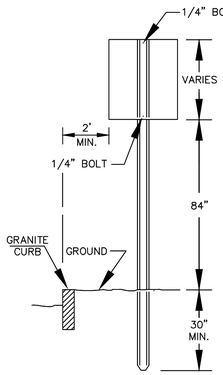
LENGTH: P-12, 12'-0"; P-14, 14'-0"; P-16, 16'-0".
WEIGHT PER LINEAR FOOT: 2.50 LBS. (MIN.)
HOLES: 3/8" DIA. 1' C-C FULL LENGTH
STEEL: SHALL CONFORM TO ASTM A-499 (GRADE 60) OR ASTM A-576 (GRADE 1070-1080).
FINISH: SHALL BE PAINTED WITH TWO COATS OF AN APPROVED MEDIUM GREEN, BAKED ON OR AIR DRIED, PAINT OF WEATHER RESISTANT QUALITY. ALL FABRICATION SHALL BE COMPLETE BEFORE PAINTING.



DIMENSIONS SHOWN ARE NOMINAL

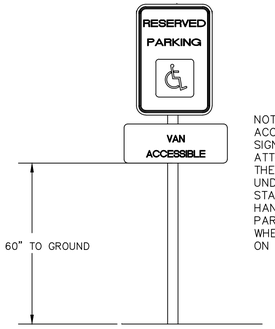
ALTERNATE SECTIONS MUST BE APPROVED PRIOR TO USE.





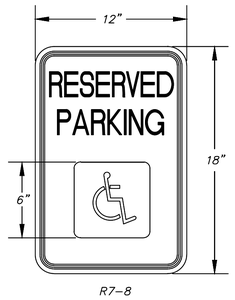
NOTES
1. POSTS SHALL BE PLUMB; ANY POST BENT OR OTHERWISE DAMAGED SHALL BE REMOVED AND PROPERLY REPLACED.
2. POSTS MAY BE SET OF DRIVEN. WHEN POSTS ARE SET, HOLES SHALL BE DUG TO THE PROPER DEPTH; AFTER INSERTING POSTS, THE HOLES SHALL BE BACK FILLED WITH SUITABLE MATERIAL IN LAYERS NOT TO EXCEED A 6" DEPTH, THOROUGHLY COMPACTED.
3. CARE SHALL BE TAKEN TO PRESERVE THE ALIGNMENT OF THE POST. WHEN POSTS ARE DRIVEN, A SUITABLE DRIVING CAP SHALL BE USED AND AFTER DRIVING THE TOP OF THE POST SHALL HAVE SUBSTANTIALLY THE SAME CROSS- SECTIONAL DIMENSION AS THE BODY OF THE POST; BATTERED HEADS WILL NOT BE ACCEPTED.
4. POSTS SHALL NOT BE DRIVEN WITH THE SIGN ATTACHED TO THE POST.
5. SIGNS SHALL BE ERECTED IN CONFORMANCE WITH THE REQUIREMENTS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
6. WHEN SIGN IS IN PLACE NO PART OF POST SHALL EXTEND ABOVE THE SIGN.

Sign Post N.T.S.



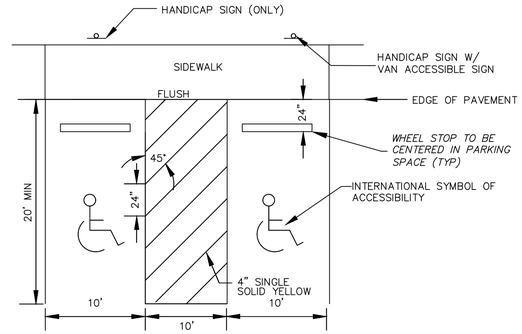
NOTE: VAN ACCESSIBLE SIGN TO BE ATTACHED TO THE SIGN POST UNDER THE STANDARD HANDICAPPED PARKING SIGN WHERE NOTED ON DRAWINGS.

Reserved Parking – Handicap & Van Accessible Sign N.T.S.

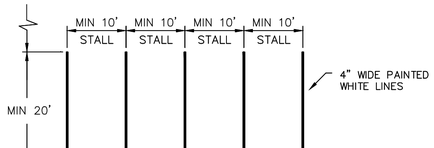


R7-8

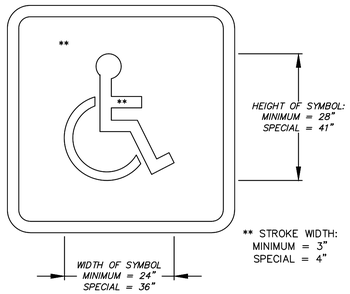
Reserved Parking Handicap Sign N.T.S.



Handicap Parking Space Detail (Van Accessible) N.T.S.



Standard Striping Detail N.T.S.



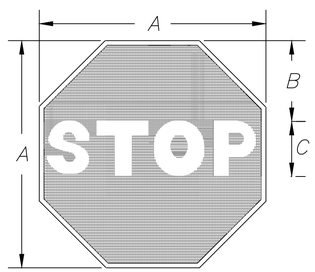
Int'l Symbol of Accessibility Marking N.T.S.

18" X 24"

No Parking Loading Zone Sign N.T.S.

18" X 24"

1 Hour Parking Sign N.T.S.

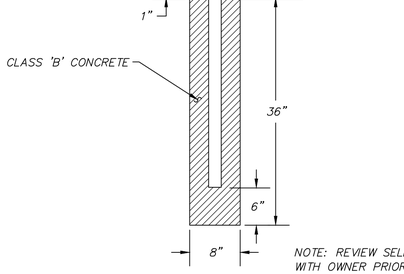


R1-1

SIGN	DIMENSIONS (INCHES)				
	BIKE	MIN	STD	EXPWY	SPECIAL
A	18	24	30	36	48
B	6	8	10	12	16
C	6	8	10	12	16

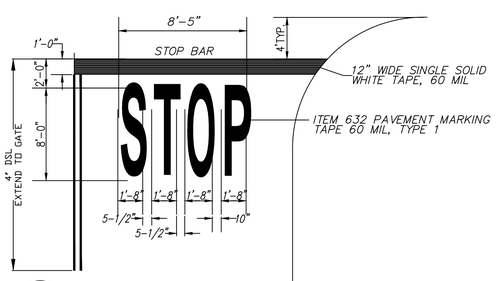
COLORS
LEGEND – WHITE (REFL)
BACKGROUND – RED (REFL)

21 / 02890 Stop Sign N.T.S.



NOTE: REVIEW SELECTED SIGN POST WITH OWNER PRIOR TO INSTALLATION.

23 / 02890 Traffic Sign Post N.T.S.



7 / 02760 Typical Stop Bar N.T.S.

RESIDENCES AT CHESTNUT
BUILDING 2
CIVIL DETAILS - SIGNAGE
& PAVEMENT MARKINGS
TAX MAP 73 LOTS 30A & 31
MERRIMACK STREET
MANCHESTER NEW HAMPSHIRE

PROJ. No.: 20211191.A10
DATE: MAY 2022

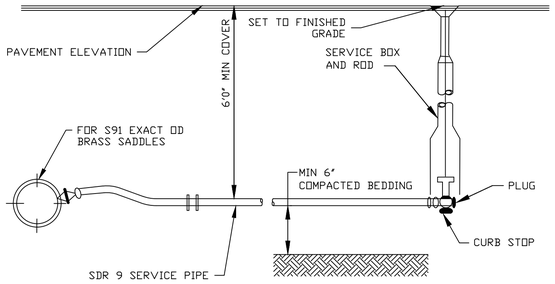
CD-523

FUSS & O'NEILL
50 COMMERCIAL STREET
MANCHESTER, NEW HAMPSHIRE 03101
603.668.8223
www.fando.com

STATE OF NEW HAMPSHIRE
ARMAND ALPHONSE DUBOIS III
No. 11921
DRAFT
LICENSED
PROFESSIONAL ENGINEER

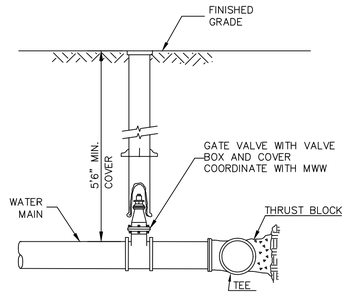
No. | DATE | DESCRIPTION | DESIGNER | REVIEWER

SCALE: HORZ.: VERT.: DATUM: HORZ.: NAD83 VERT.: NAVD88 GRAPHIC SCALE 0



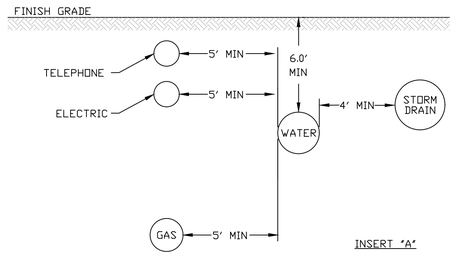
Typical Water Service Connection

N.T.S.

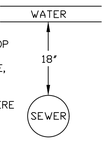


Buried Gate Valve Detail

N.T.S.



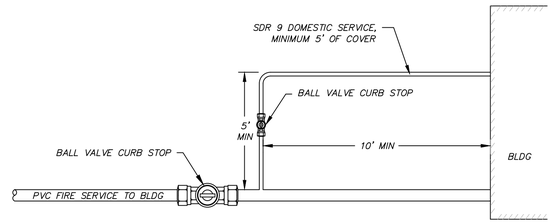
INSERT 'A'



NOTES:
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO MWW TECHNICAL SPECIFICATIONS.
2. ALL WATER MAINS SHOULD HAVE A MINIMUM DEPTH OF 6.0 FROM TOP OF PIPE TO FINISH GRADE.
3. AT CROSSINGS WHERE 10' HORIZONTAL SEPARATION IS NOT POSSIBLE, 18" VERTICAL SEPARATION SHALL BE PROVIDED. SEE INSERT "A".
4. A MINIMUM 10' HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL WATER AND SEWER UTILITIES. AT MAIN AND SERVICE CROSSINGS WHERE 10' HORIZONTAL SEPARATION IS NOT POSSIBLE, AN 18" VERTICAL CLEARANCE SHALL BE PROVIDED WITH WATER OVER SEWER.

Water Main—Numerous Details Separation

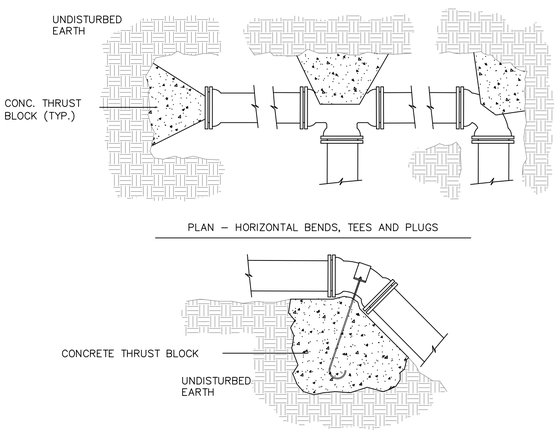
N.T.S.



NOTES:
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO HAWC TECHNICAL SPECIFICATIONS.
2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.

Typical Domestic Water Service Tapped Off Fire Service

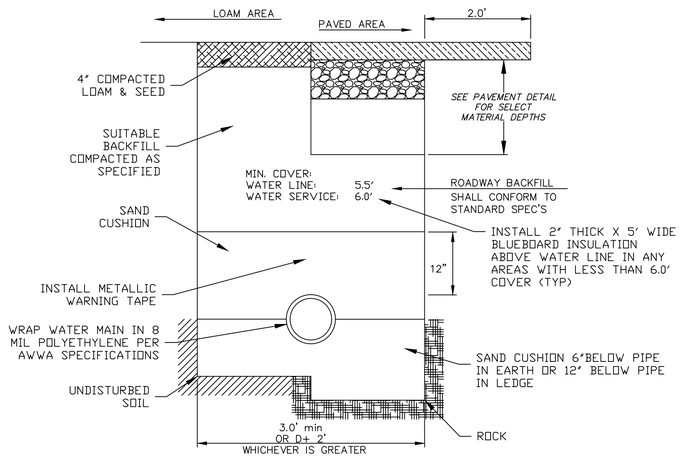
N.T.S.



NOTES
1. THRUST BLOCK DIMENSIONS TO BE DETERMINED IN FIELD BY ENGINEER BASED ON PIPE SIZE, WATER PRESSURE AND SOIL TYPE.
2. STONE BACKING MAY BE SUBSTITUTED FOR CONCRETE THRUST BLOCKS PROVIDED THE STONE(S) ARE OF EQUAL SIZE AND BEAR ON UNDISTURBED EARTH.
3. USE OF JOINT RESTRAINT SYSTEMS SHALL NOT ELIMINATE THRUST BLOCK REQUIREMENTS (WHERE POSSIBLE).

Typical Thrust Blocks

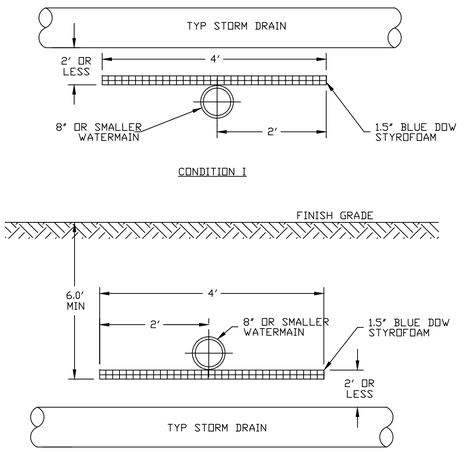
N.T.S.



NOTES:
1. PAVEMENT REPAIR IN EXISTING ROADWAYS SHALL CONFORM TO STREET OPENING REGULATIONS. DEPTH FOR BITUMINOUS PAVEMENT SHALL BE AS SPECIFIED IN PAVEMENT DETAIL.
2. NEW ROADWAY CONSTRUCTION SHALL CONFORM TO TOWN SPECIFICATIONS.
3. MATERIAL SHALL BE REPLACED IN KIND WHENEVER POSSIBLE.
4. A MINIMUM 2' CUTBACK IS REQUIRED AT THE TOP OF THE TRENCH WALL OVER UNDISTURBED MATERIAL.
5. COMPACTION SHALL BE IN 12-INCH LAYERS FOR BEDDING AND BLANKET MATERIALS.
6. BACKFILL MATERIAL SHALL BE COMPACTED IN NO MORE THAN 3-FOOT THICK LAYERS TO THE GROUND SURFACE EXCEPT FOR ROAD CONSTRUCTION WHERE THE FINAL 3 FEET SHALL BE COMPACTED IN NOT MORE THAN 12-INCH THICK LAYERS TO THE ROAD SURFACE.

Typical Water Trench Detail

N.T.S.



NOTES:
1. HAWC RESERVES THE RIGHT TO MODIFY INSULATION REQUIREMENTS AS NECESSARY BASED ON FIELD CONDITIONS, ETC.
2. THE LENGTH OR WIDTH OF INSULATION SHALL EXTEND 1 STORM DRAIN PIPE DIAMETER BEYOND THE EDGE OF STORM DRAIN PIPE IN EACH DIRECTION OR A MINIMUM OF 2' BEYOND THE CENTERLINE OF THE STORM DRAIN PIPE, WHICHEVER IS GREATER.
3. ALL BUTT JOINT SEAMS TO BE OVERLAPPED WITH A 1' PIECE OF INSULATION CENTERED OVER SEAM.

Storm Drain – Watermain Intersecting Runs

N.T.S.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

STATE OF NEW HAMPSHIRE – ARMAND ALPHONSE DUBOIS III – No. 11921 – DRAFT – LICENSED PROFESSIONAL ENGINEER

SCALE: HORZ.: VERT.: GRAPHIC SCALE 0
DATUM: HORZ.: VERT.: NAVD88

FUSS&O'NEILL
50 COMMERCIAL STREET
MANCHESTER, NEW HAMPSHIRE 03101
603.668.8223
www.fuss-o'neill.com

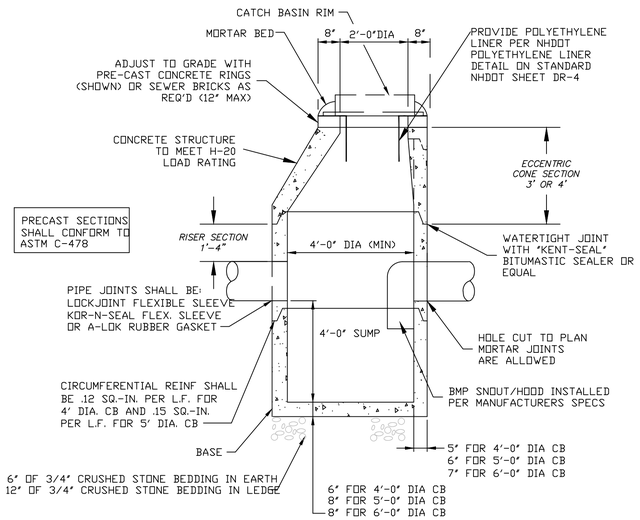
RESIDENCES AT CHESTNUT
BUILDING 2
CIVIL DETAILS
WATER
TAX MAP 73 LOTS 30A & 31
MERRIMACK STREET
MANCHESTER NEW HAMPSHIRE

PROJ. No.: 20211191.A10
DATE: MAY 2022

CD-524

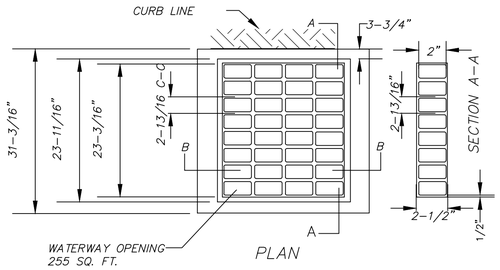
File Path: J:\DWG\P2021\11191\A10\Civil\Plan\20211191.A10_DTLS01-MERRIMACK BLDG2_1_23193_037f871d.sv$.dwg Layout: CD-524 Plotted: Wed, May 25, 2022 - 12:39 PM User: adubois
MS VIEW: LAYER STATE: Plotter: DWG TO PDF.PC3 CTB File: FO.STB

ALTERNATE H-20 TOP SLAB
NOT TO SCALE

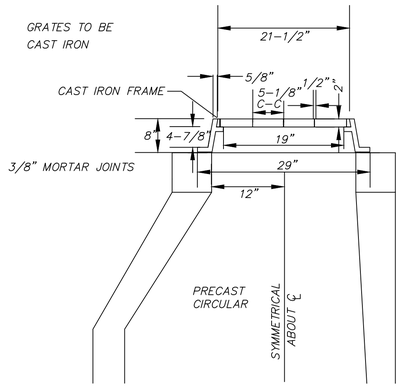


NOTES:
1. ALL SECTIONS SHALL BE CONCRETE, CLASS AA (4,000 PSI) CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER L.F. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
2. THE TONGUE AND GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER L.F.
3. RISERS OF 1'-4" MAY BE USED TO REACH THE DESIRED ELEVATION.
4. STEPS ARE NOT ALLOWED.

PRECAST REINFORCED CATCH BASIN
N.T.S.

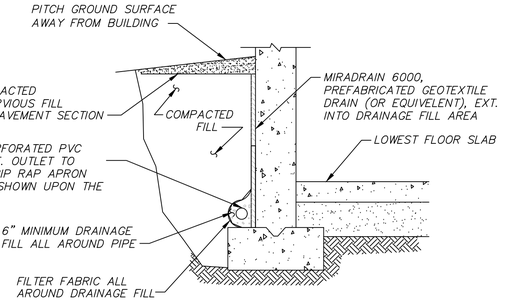


PLAN



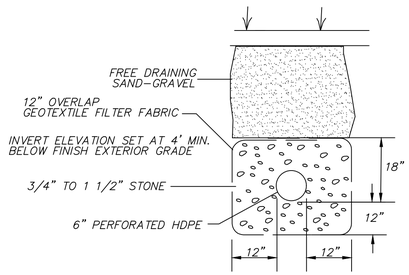
SECTION B-B

31 / 02630 Typical Grate & Frame Detail
N.T.S.

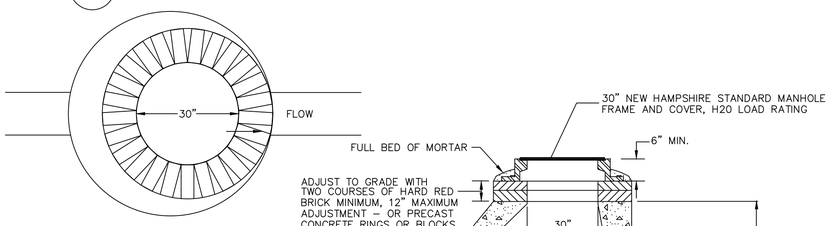


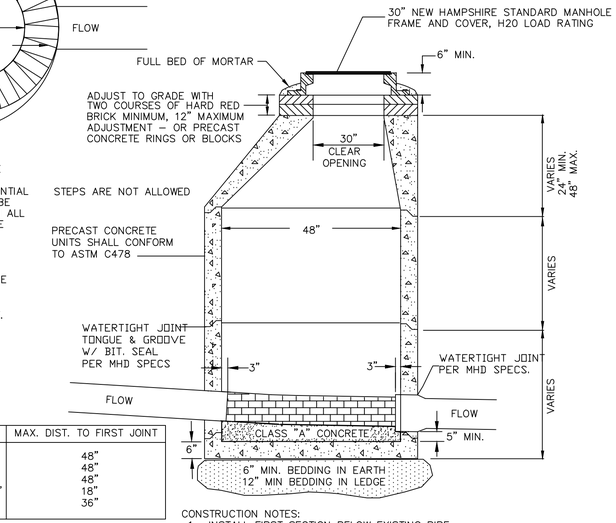
NOTE: COORDINATE WITH GEOTECHNICAL ENGINEER

Foundation Drain Detail
N.T.S.



1 / 02620 Underdrain Detail
N.T.S.



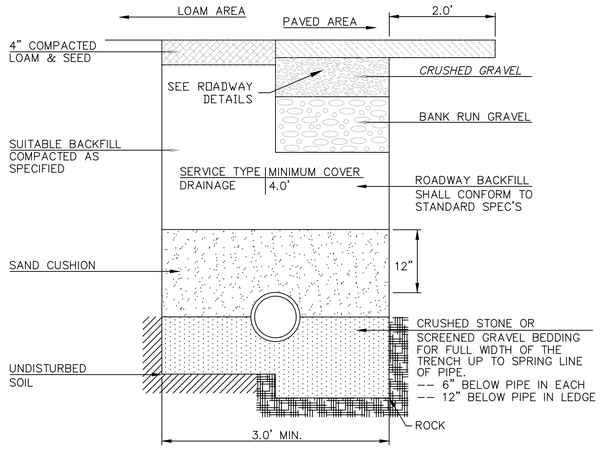


NOTES:
ALL SECTIONS SHALL BE CONCRETE CLASS AA (4000 PSI). CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER L.F. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER L.F.

TYPE OF PIPE	SIZE	MAX. DIST. TO FIRST JOINT
R.C.P. & C.I.	ALL	48"
C.I.P.	ALL	48"
P.V.C.	>15"	48"
V.C.P.	0-12"	18"
V.C.P.	>12"	36"

CONSTRUCTION NOTES:
1. INSTALL FIRST SECTION BELOW EXISTING PIPE.
2. CONSTRUCT BRICK SHELF AND ADD REMAINING SECTIONS
3. FORM WATER TIGHT JOINT USING "KENT-SEAL" BITUMASTIC SEAL
4. CUT PIPE IN TWO LOCATIONS, 3" FROM MANHOLE INSIDE WALL

Drain Manhole Detail
N.T.S.



NOTES:
1. PAVEMENT REPAIR IN EXISTING ROADWAYS SHALL CONFORM TO STREET OPENING REGULATIONS. DEPTH FOR BITUMINOUS PAVEMENT SHALL BE AS SPECIFIED IN PAVEMENT DETAIL.
2. NEW ROADWAY CONSTRUCTION SHALL CONFORM TO SUBDIVISION SPECIFICATIONS.
3. IN LIEU OF THE 12" GRAVEL COURSE AND 6" CRUSHED GRAVEL, 18" OF CRUSHED GRAVEL OR RECLAIMED STABILIZED BASE MAY BE USED AS A BASE FOR THE PAVEMENT REPAIR.
4. MATERIAL SHALL BE REPLACED IN KIND WHENEVER POSSIBLE.
5. A MINIMUM 2' CUTBACK IS REQUIRED AT THE TOP OF THE TRENCH WALL OVER UNDISTURBED MATERIAL.
6. USE CLASS V CONCRETE IN LOCATIONS WITH LESS THAN 3' OF COVER.
7. IF LEDGE IS DISCOVERED, REMOVE A MINIMUM OF 2' BELOW GRAVELS AND REPLACE WITH SAND.

6 / 02315 Typical Drainage Trench Detail
N.T.S.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

STATE OF NEW HAMPSHIRE
ARMAND ALPHONSE DUBOIS III
No. 11921
DRAFT
LICENSED
PROFESSIONAL ENGINEER

SCALE: HORZ.: VERT.:
DATUM: HORZ.: NAD83 VERT.: NAVD88
GRAPHIC SCALE 0

FUSS & O'NEILL
50 COMMERCIAL STREET
MANCHESTER, NEW HAMPSHIRE 03101
603.668.8223
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RESIDENCES AT CHESTNUT
BUILDING 2
CIVIL DETAILS
STORMWATER
TAX MAP 73 LOTS 30A & 31
MERRIMACK STREET
MANCHESTER NEW HAMPSHIRE

PROJ. No.: 20211191.A10
DATE: MAY 2022

CD-525

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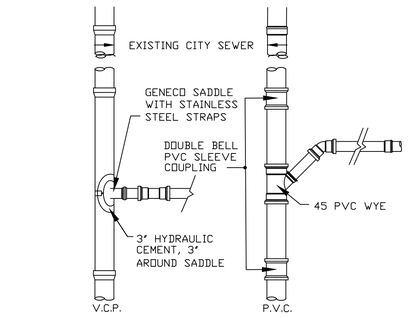
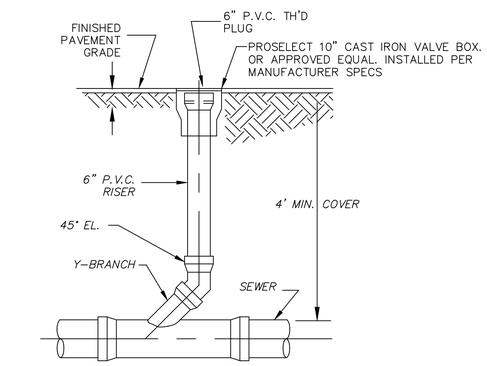


Typical Sewer Connection

N.T.S.



3 / 02530 Sewer Cleanout

N.T.S.

GRAVITY SEWER TESTING REQUIREMENTS

PER ENV-WQ 704.06 GRAVITY SEWER PIPE TESTING.

(A) ALL NEW GRAVITY SEWERS SHALL BE TESTED FOR WATER TIGHTNESS BY THE USE OF LOW-PRESSURE AIR TESTS.
(B) LOW-PRESSURE AIR TESTING SHALL BE IN CONFORMANCE WITH THE FOLLOWING TESTING STANDARDS IN EFFECT AT THE TIME THE TEST IS CONDUCTED:
(1) ASTM F1417 "STANDARD TEST METHOD FOR INSTALLATION ACCEPTANCE OF PLASTIC GRAVITY SEWER LINES USING LOW-PRESSURE AIR", AVAILABLE AS NOTED IN APPENDIX D; OR
(2) UNI-BELL PVC PIPE ASSOCIATION UNI-B-6, "LOW-PRESSURE AIR TESTING OF INSTALLED SEWER PIPE", AVAILABLE AS NOTED IN APPENDIX D.
(C) ALL NEW GRAVITY SEWERS SHALL BE:
(1) CLEANED AND VISUALLY INSPECTED USING A LAMP TEST AND BY INTRODUCING WATER TO DETERMINE THAT THERE IS NO STANDING WATER IN THE SEWER; AND
(2) TRUE TO LINE AND GRADE FOLLOWING INSTALLATION AND PRIOR TO USE. NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES 15 ENV-WQ 700
(D) ALL PLASTIC SEWER PIPE SHALL BE VISUALLY INSPECTED AND DEFLECTION TESTED NOT LESS THAN 30 DAYS NOR MORE THAN 90 DAYS FOLLOWING INSTALLATION.
(E) THE MAXIMUM ALLOWABLE DEFLECTION OF FLEXIBLE SEWER PIPE SHALL BE 5% PERCENT OF AVERAGE INSIDE DIAMETER. A RIGID BALL OR MANDREL WITH A DIAMETER OF AT LEAST 95% OF THE AVERAGE INSIDE PIPE DIAMETER SHALL BE USED FOR TESTING PIPE DEFLECTION. THE DEFLECTION TEST SHALL BE CONDUCTED WITHOUT MECHANICAL PULLING DEVICES.

MANHOLE TESTING REQUIREMENTS.

PER ENV-WQ 704.17 MANHOLES: TESTING.

(A) MANHOLES SHALL BE TESTED FOR LEAKAGE USING A VACUUM TEST IN ACCORDANCE WITH THE ASTM C1244 STANDARD IN EFFECT WHEN THE TESTING IS PERFORMED, AVAILABLE AS NOTED IN APPENDIX D. A MANHOLE MAY BE BACKFILLED PRIOR TO PERFORMING A VACUUM TEST, BUT IF THE MANHOLE FAILS THE VACUUM TEST, BACKFILL SHALL BE REMOVED SO REPAIRS TO THE MANHOLE CAN BE MADE FROM THE OUTSIDE OF THE MANHOLE PRIOR TO RETESTING.
(B) THE MANHOLE VACUUM TEST SHALL CONFORM TO THE FOLLOWING:
(1) THE INITIAL VACUUM GAUGE TEST PRESSURE SHALL BE 10 INCHES HG; AND NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES 23 ENV-WQ 700
(2) THE MINIMUM ACCEPTABLE TEST HOLD TIME FOR A 1-INCH HG PRESSURE DROP TO 9 INCHES HG SHALL BE:
A. NOT LESS THAN 2 MINUTES FOR MANHOLES LESS THAN 10 FEET DEEP IN DEPTH;
B. NOT LESS THAN 2.5 MINUTES FOR MANHOLES 10 TO 15 FEET DEEP; AND
C. NOT LESS THAN 3 MINUTES FOR MANHOLES MORE THAN 15 FEET DEEP;
(C) THE MANHOLE SHALL BE REPAIRED AND RETESTED IF THE TEST HOLD TIMES FAIL TO ACHIEVE THE ACCEPTANCE LIMITS SPECIFIED IN (B), ABOVE.
(D) INVERTS AND SHELVES SHALL NOT BE INSTALLED UNTIL AFTER SUCCESSFUL TESTING IS COMPLETED.
(E) IMMEDIATELY FOLLOWING COMPLETION OF THE LEAKAGE TEST, THE FRAME AND COVER SHALL BE PLACED ON THE TOP OF THE MANHOLE OR SOME OTHER MEANS USED TO PREVENT ACCIDENTAL ENTRY BY UNAUTHORIZED PERSONS, CHILDREN, OR ANIMALS, UNTIL THE CONTRACTOR IS READY TO MAKE FINAL ADJUSTMENT TO GRADE.

SEWER MANHOLE NOTES:

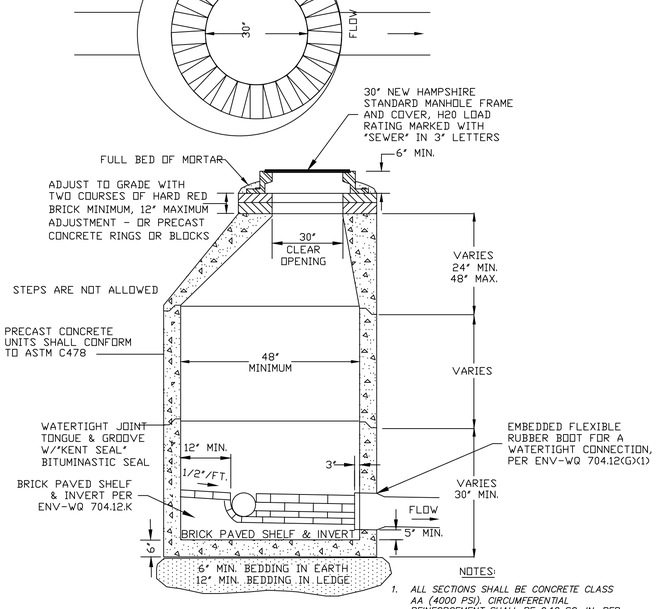
ALL SECTIONS SHALL BE CONCRETE CLASS AA (4000 PSI). CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER L.F. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL. THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER L.F..

HORIZONTAL JOINTS BETWEEN SECTIONS OF PRE-CAST CONCRETE BARRELS SHALL BE OF AN OVERLAPPING TYPE SEALED FOR WATER-TIGHTNESS USING A DOUBLE ROW OF AN ELASTOMERIC OR MASTIC-LIKE SEALANT

ALL PRECAST SECTIONS AND BASES SHALL BE COATED ON THE EXTERIOR WITH A BITUMINOUS, DAMP-PROOF COATING.

(A) MATERIALS OF CONSTRUCTION FOR MANHOLES SHALL BE AS FOLLOWS:
(1) CONCRETE FOR MANHOLES AND CONCRETE GRADE RINGS SHALL CONFORM TO THE REQUIREMENTS FOR CLASS AA CONCRETE IN THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AS AVAILABLE AT HTTP://WWW.NH.GOV/DOT/ORG/PROJECTDEVELOPMENT/HIGHWAYDESIGN/SPECIFICATIONS/INDEX.HTM
(2) REINFORCING FOR CONCRETE MANHOLES AND CONCRETE GRADE RINGS SHALL BE STEEL OR STRUCTURAL FIBERS THAT CONFORM TO THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AS AVAILABLE AT HTTP://WWW.NH.GOV/DOT/ORG/PROJECTDEVELOPMENT/HIGHWAYDESIGN/SPECIFICATIONS/INDEX.HTM
(3) PRECAST CONCRETE BARREL SECTIONS, CONES, AND BASES SHALL BE CERTIFIED BY THEIR MANUFACTURER(S) AS CONFORMING TO THE ASTM C478 STANDARD IN EFFECT AT THE TIME THE BARREL SECTIONS, CONES, AND BASES ARE MANUFACTURED;
(4) THE MANHOLE FRAME AND COVER SHALL PROVIDE A 30-INCH DIAMETER CLEAR OPENING;
(5) THE MANHOLE COVER SHALL HAVE THE WORD "SEWER" IN 3-INCH LETTERS CAST INTO THE TOP SURFACE;
(6) THE CASTINGS SHALL BE OF EVEN-GRAINED CAST IRON, SMOOTH, AND FREE FROM SCALE, LUMPS, BLISTERS, SAND HOLES, AND DEFECTS;
(7) CONTACT SURFACES OF COVERS AND FRAMES SHALL BE MACHINED AT THE FOUNDRY TO PREVENT ROCKING OF COVERS IN ANY ORIENTATION;
(8) CASTINGS SHALL BE EQUAL TO CLASS 30 AND CERTIFIED BY THEIR MANUFACTURER AS CONFORMING TO THE ASTM A48/48M STANDARD IN EFFECT AT THE TIME THE CASTINGS WERE MANUFACTURED;
(9) BRICK MASONRY FOR SHELF, INVERT, AND GRADE ADJUSTMENT SHALL BE CERTIFIED BY ITS MANUFACTURER AS COMPLYING WITH THE ASTM C32 STANDARD IN EFFECT AT THE TIME THE BRICK IS MANUFACTURED, CLAY OR SHALE, FOR GRADE SS HARD BRICK, WITH NO MORE THAN 5 LAYERS OF BRICK FOR GRADE ADJUSTMENT;
(10) MORTAR SHALL BE COMPOSED OF PORTLAND CEMENT AND SAND WITH OR WITHOUT HYDRATED LIME ADDITION;
(11) PROPORTIONS IN MORTAR OF PARTS BY VOLUMES SHALL BE:
A. 4.5 PARTS SAND AND 1.5 PARTS CEMENT; OR
B. 4.5 PARTS SAND, ONE PART CEMENT AND 0.5 PART HYDRATED LIME;
(12) CEMENT SHALL BE TYPE II PORTLAND CEMENT CONFORMING TO ASTM C150-05;
(13) HYDRATED LIME SHALL BE TYPE S CONFORMING TO THE ASTM C207-06 STANDARD SPECIFICATIONS FOR HYDRATED LIME FOR MASONRY PURPOSES ;
(14) SAND SHALL CONSIST OF INERT NATURAL SAND CONFORMING TO THE ASTM C33-03 STANDARD SPECIFICATIONS FOR CONCRETE, FINE AGGREGATES ;
(15) CONCRETE FOR DROP SUPPORTS SHALL CONFORM TO THE REQUIREMENT FOR CLASS AAA CONCRETE OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AS AVAILABLE AT HTTP://WWW.NH.GOV/DOT/BUREAUS/HIGHWAYDESIGN/SPECIFICATIONS/INDEX.HTM;
(16) SUBJECT TO (17), BELOW, A FLEXIBLE PIPE JOINT SHALL BE PROVIDED WITHIN THE FOLLOWING DISTANCES FROM ANY MANHOLE CONNECTION:
A. WITHIN 48 INCHES FOR REINFORCED CONCRETE (RC) PIPE; AND
B. WITHIN 60 INCHES FOR PVC PIPE LARGER THAN 15-INCH DIAMETER;
(17) NO FLEXIBLE JOINT SHALL BE REQUIRED FOR:
A. DI PIPE; OR
B. PVC PIPE UP THROUGH 15-INCH DIAMETER; AND
(18) WHEN MANHOLE DEPTH IS LESS THAN 6 FEET, A REINFORCED CONCRETE SLAB COVER MAY BE USED IN LIEU OF A CONE SECTION, PROVIDED THE SLAB HAS AN ECCENTRIC ENTRANCE OPENING AND BE CAPABLE OF SUPPORTING H-20 LOADS.

ALL WORK SHALL CONFORM TO THE CITY OF MANCHESTER STANDARD SPECIFICATIONS FOR ROAD, DRAIN AND SEWER CONSTRUCTION, CURRENT EDITION".

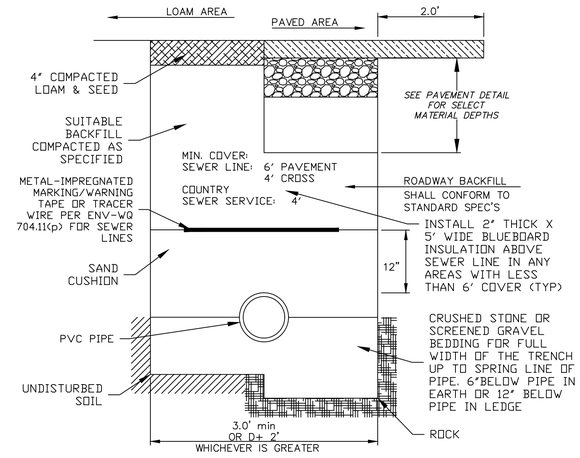


TYPE OF PIPE	SIZE	MAX. DIST. TO FIRST JOINT
R.C.P. & C.I.	ALL	48"
C.I.P.	ALL	48"
P.V.C.	>15"	48"
V.C.P.	0-12"	18"
V.C.P.	>12"	36"

NOTES:
1. *ALL SECTIONS SHALL BE CONCRETE CLASS AA (4000 PSI). CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER L.F. IN ALL SECTIONS, AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL*
2. *THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER L.F.*
3. *BASE SECTION SHALL BE MONOLITHIC TO A POINT AT LEAST 6" ABOVE CROWN OF INCOMING PIPE, PER ENV-WQ 704.12 (E)*
4. *SEWER MANHOLE STEPS ARE PROHIBITED.*

Sewer Manhole Detail

N.T.S.



NOTES:
1. PAVEMENT REPAIR IN EXISTING ROADWAYS SHALL CONFORM TO STREET OPENING REGULATIONS. DEPTH FOR BITUMINOUS PAVEMENT SHALL BE AS SPECIFIED IN PAVEMENT DETAIL.
2. NEW ROADWAY CONSTRUCTION SHALL CONFORM TO SUBDIVISION SPECIFICATIONS.
3. IN LIEU OF THE 12" GRAVEL COURSE AND 6" CRUSHED GRAVEL, 18" OF CRUSHED GRAVEL OR RECLAIMED STABILIZED BASE MAY BE USED AS A BASE FOR THE PAVEMENT REPAIR.
4. MATERIAL SHALL BE REPLACED IN KIND WHENEVER POSSIBLE.
5. A MINIMUM 2' CUTBACK IS REQUIRED AT THE TOP OF THE TRENCH WALL OVER UNDISTURBED MATERIAL.
6. COMPACTION SHALL BE IN 12-INCH LAYERS FOR BEDDING AND BLANKET MATERIALS.
7. BACKFILL MATERIAL SHALL BE COMPACTED IN NO MORE THAN 3-FOOT THICK LAYERS TO THE GROUND SURFACE EXCEPT FOR ROAD CONSTRUCTION WHERE THE FINAL 3 FEET SHALL BE COMPACTED IN NOT MORE THAN 12-INCH THICK LAYERS TO THE ROAD SURFACE.
8. TRENCHES FOR SEWER CONSTRUCTION SHALL MEET THE REQUIREMENTS OF ENV-WQ 704.11. PIPE TRENCH BEDDING MATERIAL SHALL BE #67 STONE (ASTM C33/C33M) PER ENV-WQ 704.11(a). SAND BLANKET MATERIAL SHALL CONFORM WITH PROVISIONS OF ENV-WQ 704.11(b). TRENCH BACKFILL MATERIAL SHALL CONFORM WITH ENV-WQ 704.11(h).
9. GRAVITY SEWER CONSTRUCTION MATERIALS SHALL MEET THE REQUIREMENTS OF ENV WQ. 704.05. PVC PIPE SHALL CONFORM WITH ASTM D3034 AND ASTM D2412 AND PVC JOINTS SEALS SHALL CONFORM WITH ASTM D3212.

Typical Sewer Trench Detail

N.T.S.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

STATE OF NEW HAMPSHIRE — ARMAND PHONSE DUBOIS III — No. 11921 — DRAFT LICENSED PROFESSIONAL ENGINEER

SCALE: HORZ.: VERT.: DATUM: HORZ.: VERT.: NAVD88 — GRAPHIC SCALE 0

FUSS & O'NEILL
50 COMMERCIAL STREET
MANCHESTER, NEW HAMPSHIRE 03101
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RESIDENCES AT CHESTNUT
BUILDING 2
CIVIL DETAILS
SEWER
TAX MAP 73 LOTS 30A & 31
MERRIMACK STREET
MANCHESTER NEW HAMPSHIRE

PROJ. No.: 20211191.A10
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CD-526

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PEMCO Est. 1882
LIGHTING PRODUCTS
A QSSI COMPANY

BRANDYWINE 21

POST TOP, PENDANT, WALL

QUICK SHIP

BUY AMERICAN COMPLIANT PRODUCT

L70 (hrs) 327,000 Hours

BW21Q
EasyLED Brandywine Round Post Top

Shown with LumaLens Option

WWB21Q
EasyLED Brandywine Wall Mount

WWP21Q
EasyLED Brandywine Pendant Mount

Dimensions

Diameter (D)	21" (534mm)
Height (A)	270" (706mm)

Pemco's BW21Q Brandywine Architectural Decorative Post Top is available in Type I, II, III, IV or V distributions designed to replace HID lighting systems up to 400w MH or HPS. The fixture mounts to a pole top tenon. Typical area lighting applications include parking areas, walkways, and street lighting applications. Mounting heights of 12 to 30 feet can be used based on light level and uniformity requirements.

Specifications and Features:

Housing:
Die Cast Aluminum Housing, Integral Heat Sinking. Photocell Adaptable.

Listing & Ratings:
CSA: Listed for Wet Locations, ANSI/UL 1598, 8750; IP66 Sealed LED Compartment.

Finish:
Black Powdercoat Finish Over a Chromate Conversion Coating. Custom Colors Available Upon Request.

Lens:
Clear UV-Stabilized Polycarbonate Vandal-Resistant Array Lens with Integral Optics or SoftLED LumaLens Opal UV-Stabilized Polycarbonate Vandal-Resistant Lens. Gasketed to Seal LED Array.

Mounting:
Post Top Accommodates 3"S" 2¼" O.D. x 3" Tenon. Wall Mount Includes Cast Aluminum Arm (Wall Attachment Hardware NOT Included, Must be Selected and Provided By Contractor), and Pendant Mount Includes 15" Swivel Stem for Mounting on Flat of Sloped Ceilings.

EasyLED LED:
Aluminum Boards

Wattage:
37w Array: 37w, System: 41w; (70-150w HID Equivalent)
60w Array: 66.3w, System: 72w; (150-250w HID Equivalent)
100w Array: 109w, System: 111w; (150-250w HID Equivalent)
140w Array: 139.9w, System: 156w; (250-400w HID Equivalent)

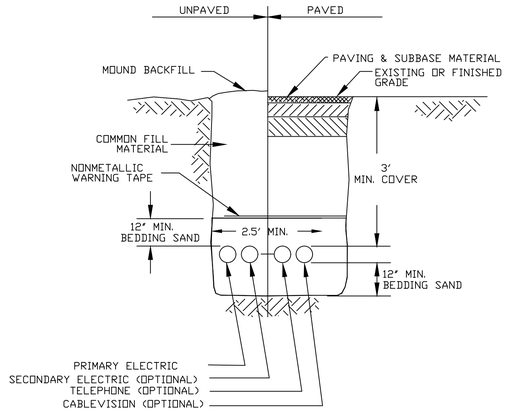
Driver:
Electronic Driver, 120-277V, 50/60Hz or 347-480V, 50/60Hz; Less Than 20% THD and PF>0.90. Standard Internal Surge Protection 6kV. 0-10V Dimming Standard for a Dimming Range of 100% to 10%. Dimming Source Current is 150 Microamps.

Controls:
Fixtures Ordered with Factory-Installed Photocell or Motion Sensor Controls are Internally Wired for Switching and/or 1-10V Dimming Within the Housing. Remote Direct Wired Interface of 1-10V Dimming is Not Implied and May Not Be Available, Please Consult Factory. Fixtures are Tested with LEPO Controls and May Not Function Properly With Controls Supplied By Others. Fixtures are NOT Designed for Use with Line Voltage Dimmers.

Warranty:
5-Year Warranty for -40°C to +50°C Environment.

See Page 4 for Projected Lumen Maintenance Table.

SoftLED



Utility Trench

N.T.S.

UTILITY TRENCH MAY VARY. CONTRACTOR SHALL COORDINATE INSTALLATION WITH EACH UTILITY COMPANY AND INSTALL PER THEIR SPECIFICATIONS AND REQUIREMENTS.

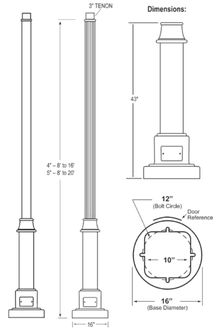
PEMCO Est. 1882
LIGHTING PRODUCTS
A QSSI COMPANY

PLB414

DECORATIVE ALUMINUM POLES

MADE IN AMERICA 137 Years

BUY AMERICAN COMPLIANT PRODUCT



Dimensions:

Specifications and Features:

- 4' – 8' to 14' standard heights
- 5' – 8' to 18' standard heights
- Straight or tapered, smooth or fluted poles

Shaft
Smooth or fluted tubing uses 6065-T5 aluminum alloy while tapered poles use 6061 aluminum alloy.

Structural Base
A356 alloy sand cast aluminum, four bolt base. An extra large access cover is included. A grounding lug is also provided.

Tenons
T300=Standard for post top (2 7/8" OD x 3" tall)
T355=Standard for shepherd's crooks arms (2 7/8" OD x 5.5" tall)
SLV=Male sleeve welded to pole; ready for extension/arm set-up (consult factory)
CAP=No tenon, removable cap
PF =Decorative pole top finial (optional adder)

Anchor Bolts
Standard with each pole: includes four 3/4–10 x 25" steel hot dip galvanized anchor bolts each with two nuts, two flat washers and one lock washer.

Accessories
GFIC=Weatherproof GFI in-use cover, cast aluminum (must indicated location)
GFIP=Weatherproof GFI in-use cover, plastic (must indicate location)
DBS=Direct burial shaft to convert pole to embedded/burial installation. 48" shaft with anti-rotational fins included.
USB=Dual USB Port (must indicate location)

Finish - Super Durable Polyester TGIC Powder Coat

- Standard finishes: high gloss black, textured black, high gloss white, medium bronze, dark bronze, green, gray, silver metallic
- Premium finishes (adder): Verde patina, pewter patina, silver sparkle, semi-gloss or matte black
- Custom and Marine-grade finishes are available. All RAL colors are available to match (adder).

PEMCO Est. 1882
LIGHTING PRODUCTS
A QSSI COMPANY

PLB414

DECORATIVE ALUMINUM POLES

MADE IN AMERICA 137 Years

BUY AMERICAN COMPLIANT PRODUCT

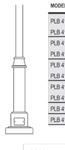
ORDERING GUIDE FOR POLES: **Example:** PLB-414-4-12-F-125-T300-N-BK

PLB-414

Model Number	Diameter	Height	Pole Type	Wall Size	Tenon	Accessories (adder)	Finish
PLB-414	4=4" 6=6" *4x3=4"-3" tapered *5x3=5"-3" tapered *No tenon required	8=8' 10=10' 12=12' 14=14' 16=16'* 18=18'* *5" only	S=Smooth F=Fluted	Refer to chart	N=None T300=2 7/8" OD x 3" tall T355=2 7/8" OD x 5.5" tall CAP=Removable cap, no tenon SLV=Male sleeve welded to pole (contact factory) CAP=Removable cap, no tenon PF =Decorative Finial (choose one)	N=None GFIC=GFI in-use cover, cast aluminum* GFIP=GFI in-use cover, plastic* USB=Dual USB port* DBS=Direction Burial Shaft *Please indicate location	Standard Colors BK=Black BZ=Bronze OBZ=Dark Bronze WH=White GR=Green SM=Silver Metallic GY=Light Grey TBK=Textured Black Premium finishes also available CC=Custom (Contact Factory)

See accessories page for Banner Arms, Flagpole Holders, Plant Hooks and Eye Bolts.

PLB 414-4&5

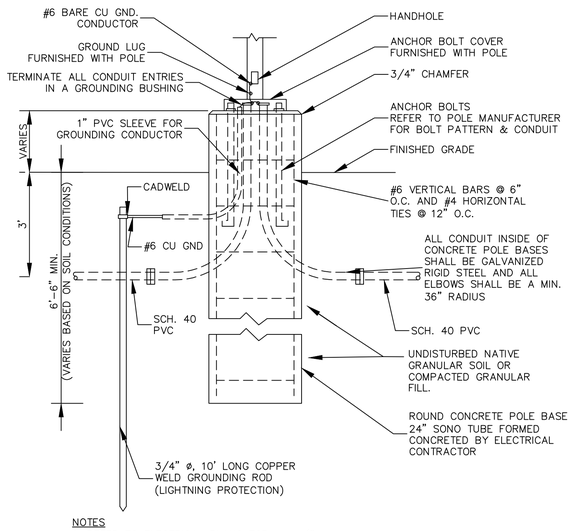


POLES	POLE HEIGHT AND MAXIMUM ALLOWABLE EPA						DIMENSIONS OF STANDARDS		
		EFFECTIVE PROJECTED AREA-SQ FT-AT:					SHAFT:		
MODEL #	HEIGHT	70 MPH	80 MPH	90 MPH	100 MPH	110 MPH	TOP DIAMETER		WALL
PLB 414-4-08	8'	37.59	31.75	25.91	20.07	14.23	4"	4"	.125
PLB 414-5-08	8'	40.18	33.93	27.68	21.43	15.18	5"	5"	.188
PLB 414-4-10	10'	29.91	25.22	20.53	15.84	11.15	4"	4"	.125
PLB 414-5-10	10'	31.98	26.98	21.98	16.98	11.98	5"	5"	.188
PLB 414-4-12	12'	22.23	18.69	15.15	11.61	8.07	4"	4"	.125
PLB 414-5-12	12'	23.81	20.03	16.25	12.47	8.69	5"	5"	.188
PLB 414-4-14	14'	14.55	12.16	9.77	7.38	4.99	4"	4"	.125
PLB 414-5-14	14'	15.36	12.84	9.21	8.74	5.15	5"	5"	.188
PLB 414-5-16	16'	13.21	10.97	8.73	6.49	3.17	5"	5"	.188
PLB 414-5-18	18'	11.06	9.07	8.25	4.24	1.19	5"	5"	.188

PEMCO provides this information as a guide only and assumes no liability for its use. Allowable pole EPA for jobsite wind conditions must be equal to or greater than fixture mount EPA. Responsibility lies with the specifier for the correct pole selection based on A.N.S.I. wind map and job location.

Finial Choice

FLUTED
Pemco standard 12 flutes



NOTES

1. REFER TO ELECTRICAL PLANS FOR WIRING DETAILS.
2. CONCRETE: 4000 PSI, AIR ENTRAINED STEEL: 60 KSI
3. VARYING HEIGHT POLE BASE:

3"	IN PAVED WALKWAYS
4"	IN LANDSCAPED OR GRASSED AREAS (FURTHER THAN 2' FROM EDGE OF PAVE).
30"	IN PAVED AREAS (PAVED PARKING AREAS)

Light Pole Base Detail

N.T.S.

(FOR 4 FULL SIZE FIXTURES)

Light Fixture Details

N.T.S.

NOTES:
1. COORDINATE WITH CITY OF MANCHESTER IF AN ALTERNATIVE FIXTURE IS PROPOSED.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

STATE OF NEW HAMPSHIRE
ARMAND ALPHONSE DUBOIS III
No. 11921
DRAFT
LICENSED
PROFESSIONAL ENGINEER

SCALE: HORZ.: VERT.:
DATUM: HORZ.: NAVD88 VERT.:
GRAPHIC SCALE 0

FUSS & O'NEILL
50 COMMERCIAL STREET
MANCHESTER, NEW HAMPSHIRE 03101
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RESIDENCES AT CHESTNUT
BUILDING 2
CIVIL DETAILS
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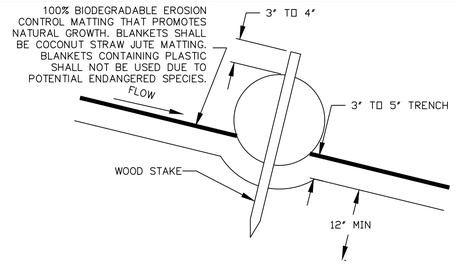
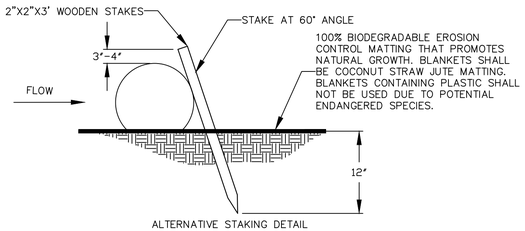
TAX MAP 73 LOTS 30A & 31
MERRIMACK STREET
MANCHESTER NEW HAMPSHIRE

PROJ. No.: 20211191.A10
DATE: MAY 2022

CD-527



ALTERNATIVE STAKING DETAIL



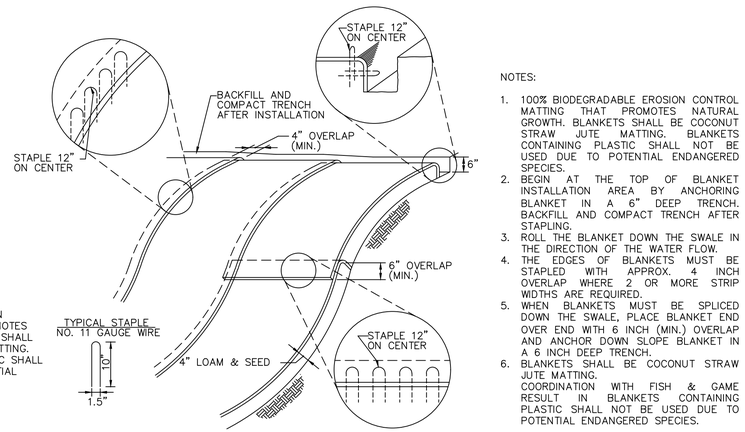
ALTERNATIVE STAKING DETAIL

COMPOST FILTER SOCK GENERAL NOTES:

1. NHF&G REQUIRES WHITE FILTREXX DEGRADABLE WOVEN SILT SOCK OR APPROVED EQUAL
2. FOR DITCH APPLICATIONS, MINIMUM INSTALLED HEIGHT OF SINGLE SOCK NOMINALLY. SOCKS ARE PLACED PERPENDICULAR TO FLOW OF WATER. FILTER SOCKS SHALL CONTINUE UP SIDE SLOPES TO TOP OF BANK OR MAXIMUM 3-FEET ABOVE INSTALLED HEIGHT. FILTER SOCKS SHALL REMAIN IN PLACE UNTIL ALL UPSTREAM AREAS ARE PERMANENTLY STABILIZED.
3. REMOVE SEDIMENT FROM BEHIND THE FILTER SOCK ONCE IT ACCUMULATES TO ONE-HALF OF THE ORIGINAL HEIGHT OF THE FILTER SOCK.
4. INSPECT FILTER SOCKS AFTER EACH RUNOFF EVENT. REMOVE AND REPLACE IF SIGNS OF UNDERCUTTING OR DOWNSTREAM RILLS ARE OBSERVED.
5. SOCKS SHOULD BE REMOVED FROM SLOPES AFTER STABILIZATION IS COMPLETE UNLESS DIRECTED OTHERWISE.
6. FILTER SOCKS APPLIED IN DITCHES SHALL BE COMPLETELY REMOVED ONCE VEGETATION IS ESTABLISHED.

Compost Filter Sock Installation Detail

N.T.S.

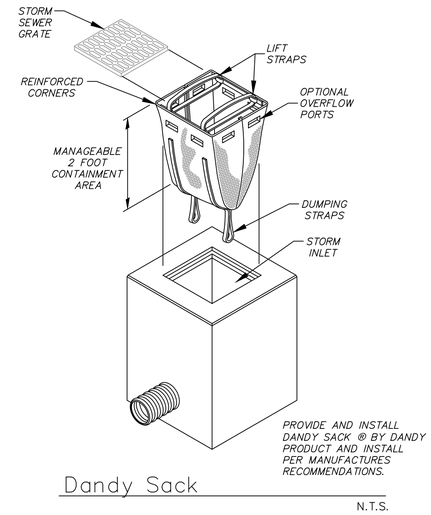


NOTES:

1. 100% BIODEGRADABLE EROSION CONTROL MATTING THAT PROMOTES NATURAL GROWTH. BLANKETS SHALL BE COCONUT STRAW JUTE MATTING. BLANKETS CONTAINING PLASTIC SHALL NOT BE USED DUE TO POTENTIAL ENDANGERED SPECIES.
2. BEGIN AT THE TOP OF BLANKET INSTALLATION AREA BY ANCHORING BLANKET IN A 6" DEEP TRENCH. BACKFILL AND COMPACT TRENCH AFTER STAPLING.
3. ROLL THE BLANKET DOWN THE SWALE IN THE DIRECTION OF THE WATER FLOW.
4. THE EDGES OF BLANKETS MUST BE STAPLED WITH APPROX. 4 INCH OVERLAP WHERE 2 OR MORE STRIP WIDTHS ARE REQUIRED.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SWALE, PLACE BLANKET END OVER END WITH 6 INCH (MIN.) OVERLAP AND ANCHOR DOWN SLOPE BLANKET IN A 6 INCH DEEP TRENCH.
6. BLANKETS SHALL BE COCONUT STRAW JUTE MATTING. COORDINATION WITH FISH & GAME RESULT IN BLANKETS CONTAINING PLASTIC SHALL NOT BE USED DUE TO POTENTIAL ENDANGERED SPECIES.

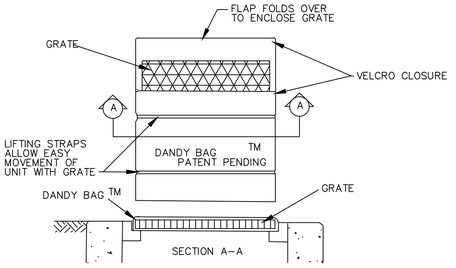
Erosion Control Blanket Slope Protection

N.T.S.



Dandy Sack

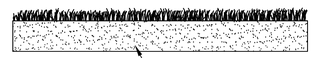
N.T.S.



INSTALLATION:
STAND GRATE ON END. PLACE DANDY BAG OVER GRATE.
ROLL GRATE OVER SO THAT OPEN END IS UP.
PULL UP SACK.
TUCK FLAP IN PREE VELCRO STRIPS TOGETHER. BE SURE END OF GRATE IS COMPLETELY COVERED BY FLAP OR DANDY BAG WILL NOT WORK PROPERLY.
HOLDING HANDLES, CAREFULLY PLACE DANDY BAG WITH GRATE INSERTED INTO CATCH BASIN FRAME.
MAINTENANCE:
WITH A STIFF BRISTLE BROOM OR SQUARE POINT SHOVEL REMOVE SILT & OTHER DEBRIS OFF SURFACE AFTER EACH EVENT. REMOVE FINE MATERIAL FROM INSIDE ENVELOPE AS NEEDED.
(CONTACT DANDY PRODUCTS INC. 1-800-591-2284)

Dandy Bag

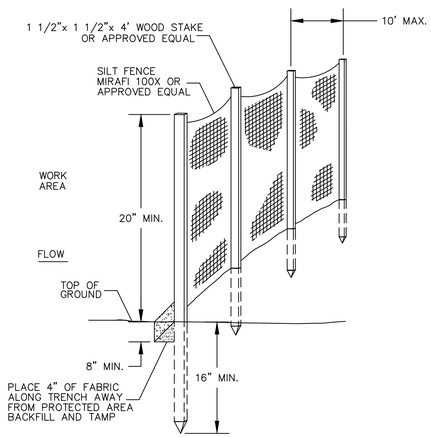
N.T.S.



4" LOAM & SEED LIMESTONE, FERTILIZER, MULCH SEE EROSION CONTROL NOTES FOR PROCEDURES AND MIXTURES

Loam & Seed Detail

N.T.S.



Silt Fence Barrier

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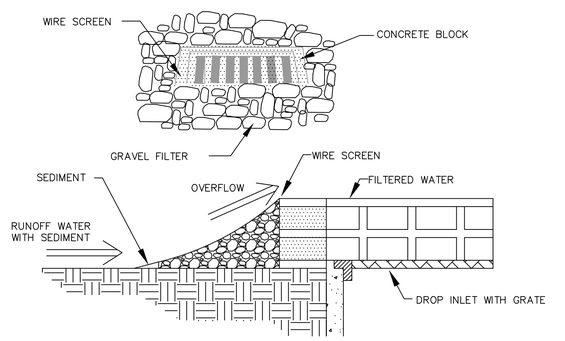

Block and Gravel Inlet Sediment Filter

N.T.S.

COLD WEATHER SITE STABILIZATION

PER ENV-WQ 1505.06 – COLD WEATHER SITE STABILIZATION.

A. TO ADEQUATELY PROTECT WATER QUALITY DURING COLD WEATHER AND DURING SPRING RUNOFF, THE ADDITIONAL STABILIZATION TECHNIQUES SPECIFIED IN THIS SECTION SHALL BE EMPLOYED DURING THE PERIOD FROM OCTOBER 15 THROUGH MAY 1.
B. SUBJECT TO (C), BELOW, THE AREA OF EXPOSED, UNSTABILIZED SOIL SHALL BE:
   1. LIMITED TO ONE ACRE; AND
   2. PROTECTED AGAINST EROSION BY THE METHODS DESCRIBED IN THIS SECTION PRIOR TO ANY THAW OR SPRING MELT EVENT.

C. THE ALLOWABLE AREA OF EXPOSED SOIL MAY BE INCREASED IF A WINTER CONSTRUCTION PLAN IS DEVELOPED BY A QUALIFIED ENGINEER OR A CPESC SPECIALIST AND SUBMITTED TO THE DEPARTMENT FOR APPROVAL AS A REQUEST TO WAIVE THE ONE-ACRE LIMIT.
D. SUBJECT TO (F) AND (G), BELOW, ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF LESS THAN 15% THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR THAT ARE DISTURBED AFTER OCTOBER 15, SHALL BE SEEDED AND COVERED WITH 3 TO 4 TONS OF HAY OR STRAW MULCH PER ACRE SECURED WITH ANCHORED NETTING OR TACKIFIER OR WITH AT LEAST 2 INCHES OF EROSION CONTROL MIX MEETING THE CRITERIA OF ENV-WQ 1506.05(B).
E. SUBJECT TO (F) AND (G), BELOW, ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF 15% OR GREATER THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR THAT ARE DISTURBED AFTER OCTOBER 15, SHALL BE SEEDED AND COVERED WITH A PROPERLY INSTALLED AND ANCHORED EROSION CONTROL BLANKET OR WITH AT LEAST 4 INCHES OF EROSION CONTROL MIX MEETING THE CRITERIA OF ENV-WQ 1506.05(B).
F. ANCHORED HAY MULCH OR EROSION CONTROL MIX THAT MEETS THE CRITERIA OF ENV-WQ 1506.05(B) SHALL NOT BE INSTALLED OVER SNOW GREATER THAN ONE INCH IN DEPTH.
G. EROSION CONTROL BLANKETS SHALL NOT BE INSTALLED OVER SNOW GREATER THAN ONE INCH IN DEPTH OR ON FROZEN GROUND.
H. ALL PROPOSED STABILIZATION IN ACCORDANCE WITH (D) OR (E), ABOVE, SHALL BE COMPLETED WITHIN A DAY OF ESTABLISHING THE GRADE THAT IS FINAL OR THAT OTHERWISE WILL EXIST FOR MORE THAN 5 DAYS.
I. ALL DITCHES OR SWALES THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR THAT ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS, AS DETERMINED BY THE OWNER'S ENGINEERING CONSULTANT.
J. AFTER OCTOBER 15, INCOMPLETE ROAD OR PARKING AREAS WHERE ACTIVE CONSTRUCTION OF THE ROAD OR PARKING AREA HAS STOPPED FOR THE WINTER SEASON SHALL BE PROTECTED WITH A MINIMUM 3-INCH LAYER OF BASE COURSE GRAVELS MEETING THE GRADATION REQUIREMENTS OF NHDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, 2016, TABLE 304-1, ITEM NO. 304.1, 304.2, OR 304.3, AVAILABLE AS NOTED IN APPENDIX B.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

STATE OF NEW HAMPSHIRE
ARMAND ALPHONSE DUBOIS III
No. 11921
DRAFT
LICENSED
PROFESSIONAL ENGINEER

SCALE: HORZ.: N/A VERT.: N/A
DATUM: HORZ.: VERT.: NAVD88
0 GRAPHIC SCALE

FUSS&O'NEILL
50 COMMERCIAL STREET
MANCHESTER, NEW HAMPSHIRE 03101
603.668.8223
www.fussoneill.com

RESIDENCES AT CHESTNUT
BUILDING 2
CIVIL DETAILS
EROSION CONTROL
TAX MAP 73 LOTS 30A & 31
MERRIMACK STREET
MANCHESTER NEW HAMPSHIRE

PROJ. No.: 20211191.A10
DATE: MAY 2022

CD-528

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INVASIVE SPECIES NOTE

1. THE CONTRACTOR SHALL TAKE STEPS TO PREVENT THE SPREAD OF INVASIVE PLANT, INSECT, AND FUNGAL SPECIES BY MEETING THE REQUIREMENTS AND INTENT OF RSA 430:53 AND AGR 3800 RELATIVE TO INVASIVE SPECIES. http://gencourt.state.nh.us/rules/state_agencies/agr3800.html

DUST CONTROL NOTE

1. THE CONTRACTOR SHALL, IN ACCORDANCE WITH ENV–A 1000 "...TAKE PRECAUTIONS THROUGHOUT THE DURATION OF THE ACTIVITY IN ORDER TO PREVENT, ABATE, AND CONTROL THE EMISSION OF FUGITIVE DUST INCLUDING BUT NOT LIMITED TO WETTING, COVERING, SHIELDING, OR VACUUMING."

MAINTENANCE NOTES

SILT FENCE/ FILTER SOCK

1. SILT FENCE/ FILTER SOCK SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.
2. IF THE FABRIC ON A SILT FENCE OR THE FILTER SOCK SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE OR FILTER SOCK, THE FABRIC OR FILTER SOCK SHALL BE REPLACED PROMPTLY.
3. SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE–HALF THE HEIGHT OF THE BARRIER.
4. SEDIMENT DEPOSITS THAT ARE REMOVED OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.

BLOCK & GRAVEL INLET SEDIMENT FILTER

1. ALL STRUCTURES SHOULD BE INSPECTED AFTER EVERY RAIN STORM AND REPAIRS MADE AS NECESSARY. SEDIMENT SHOULD BE REMOVED FROM THE TRAPPING DEVICES AFTER THE SEDIMENT HAS REACHED A MAX. OF 1/2 THE DEPTH OF THE TRAP. THE SEDIMENT SHOULD BE DISPOSED OF IN A SUITABLE AREA AND PROTECTED FROM EROSION BY EITHER STRUCTURAL OR VEGETATIVE MEANS. THE TEMPORARY TRAPS SHOULD BE REMOVED AND THE AREA REPAIRED AS SOON AS THE CONTRIBUTING DRAINAGE AREA TO THE INLET HAS BEEN COMPLETELY STABILIZED.

TYPICAL EROSION CONTROL NOTES

DURING CONSTRUCTION AND THEREAFTER, EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED AS NOTED:

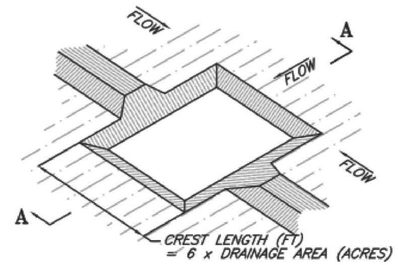
1. INSTALLATION OF PERIMETER CONTROLS (SILT FENCE OR FILTER SOCK) SHALL BE COMPLETED PRIOR TO THE START OF SITE WORK IN ANY GIVEN AREA. PREFABRICATED SILT FENCES SHALL BE INSTALLED ACCORDING TO THE MANUFACTURES' RECOMMENDATIONS.
2. PERIMETER CONTROLS SHALL BE KEPT CLEAN DURING CONSTRUCTION AND REMOVED WHEN ALL SLOPES HAVE A HEALTHY STAND OF VEGETATIVE COVER. EROSION CONTROL MEASURES SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EVERY RAINFALL.
3. EXISTING VEGETATION IS TO REMAIN UNDISTURBED WHEREVER POSSIBLE.
4. NO MORE THAN FIVE ACRES OF LAND SHALL BE LEFT DISTURBED AT ANY ONE TIME. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 72 HOURS AFTER FINAL GRADING.
5. STABILIZATION SHALL INCLUDE THE FOLLOWING, AT A MINIMUM:
   A. INSTALLATION OF BASE COURSE GRAVELS (IN PAVED AREAS)
   B. MIN. 85% VEGETATED GROWTH
   C. INSTALLATION OF STONE OR RIP RAP MATERIAL (3" MIN. DEPTH)
   D. PROPERLY INSTALLED EROSION CONTROL BLANKETS
6. ALL DISTURBED AREAS SHALL HAVE A MINIMUM OF 4" OF LOAM INSTALLED WITH NOT LESS THAN 1.1 POUNDS OF SEED MIX PER 1,000 SQ. FT. SEED MIXTURE SHALL BE:

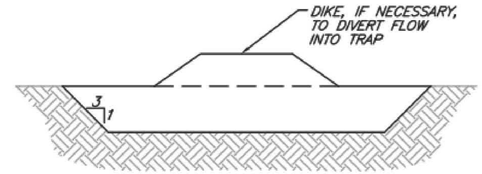
PERMANENT	
TALL FESCUE	0.45 LBS.
CREEPING RED FESCUE	0.45 LBS.
BIRDSFOOT TREFOIL	0.20 LBS.
TEMPORARY	
ANNUAL RYEGRASS	1.10 LBS.

7. LIME AND FERTILIZER SHALL BE INCORPORATED INTO THE SOIL PRIOR TO SEEDING. A MINIMUM OF 2 TONS PER ACRE OF AGRICULTURAL LIMESTONE AND 500 LBS. PER ACRE OF 10–20–20 FERTILIZER SHALL BE APPLIED. SEEDING PRACTICES SHALL COMPLY WITH LOCAL USDA SOIL CONSERVATION SERVICES RECOMMENDATIONS.
8. HAY MULCH OR JUTE MATTING SHALL BE USED WHERE INDICATED ON THE PLANS. A MINIMUM OF 1.5 TONS OF MULCH PER ACRE SHALL BE APPLIED. MULCH SHALL BE ANCHORED IN PLACE WHERE NECESSARY. JUTE MATTING SHALL BE LAID IN THE DIRECTION OF RUNOFF FLOW AND APPLIED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
9. PERMANENT OR TEMPORARY COVER MUST BE IN PLACE BEFORE THE GROWING SEASON ENDS. WHEN SEEDED AREAS ARE MULCHED, PLANTINGS BAY BE MADE FROM EARLY SPRING TO EARLY OCTOBER. WHEN SEEDED AREAS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM EARLY SPRING TO MAY 20 OR FROM AUGUST 15 TO SEPTEMBER 15. NO DISTURBED AREA SHALL BE LEFT EXPOSED DURING WINTER MONTHS, PLANT ANNUAL RYE GRASS PRIOR TO OCTOBER 15TH.
10. THE LAND AREA EXPOSED SHOULD BE KEPT TO THE SHORTEST PRACTICAL PERIOD OF TIME AND SHALL NOT REMAIN EXPOSED MORE THAN 45 DAYS FROM INITIAL DISTURBANCE.
11. THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT IN NO CASE SHALL EXCEED 5 ACRES AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED
12. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
    - BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED
    - A MINIMUM OF 85% OF VEGETATED GROWTH HAS BEEN ESTABLISHED
    - A MINIMUM OF 3" NON EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED
    - EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
13. ALL CONTRIBUTING WATERSHED AREAS MUST BE FULLY STABILIZED PRIOR TO DIRECTING STORMWATER TO THEM.
14. ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER EVERY 0.25" OR GREATER RAINFALL WITHIN A 24–HOUR PERIOD.
15. TEMPORARY WATER DIVERSION (SEDIMENT BASINS, SWALES, ETC.) MUST BE USED AS NECESSARY TO CONTAIN RUNOFF UNTIL SOILS ARE STABILIZED.
16. CUT AND FILL SLOPES MUST BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
17. STORMWATER BASINS AND SWALES MUST BE INSTALLED BEFORE ROUGH GRADING THE SITE.
18. STORMWATER BASINS AND SWALES MUST BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.

TEMPORARY SEDIMENT TRAP NOTES

1. TEMPORARY SEDIMENT TRAPS SHOULD MEET THE FOLLOWING REQUIREMENTS:
   - SEDIMENT TRAPS SHOULD BE LOCATED SO THAT THEY CAN BE INSTALLED PRIOR TO DISTURBING THE AREA THEY ARE TO PROTECT.
   - THE TRAP SHOULD BE INSTALLED AS CLOSE TO THE DISTURBED AREA OR SOURCE OF SEDIMENT AS POSSIBLE.
   - THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE TRAP SHOULD BE LESS THAN 5 ACRES.
   - THE MINIMUM VOLUME OF THE TRAP SHOULD BE 3,600 CUBIC FEET OF STORAGE FOR EACH ACRE OF DRAINAGE AREA.
   - THE SIDE SLOPES OF THE TRAP SHOULD BE 3:1 OR FLATTER, AND SHOULD BE STABILIZED IMMEDIATELY AFTER THEIR CONSTRUCTION.
2. EMBANKMENTS:
   - THE MAXIMUM HEIGHT OF THE SEDIMENT TRAP EMBANKMENT SHOULD BE 4 FEET WHEN MEASURED FROM THE LOWEST POINT OF NATURAL GROUND ON THE DOWNSTREAM SIDE OF THE EMBANKMENT.
   - THE MINIMUM TOP WIDTH OF THE EMBANKMENT SHOULD BE 6 FEET.
3. OUTLETS (GENERAL REQUIREMENTS):
   - THE OUTLET SHOULD BE DESIGNED, CONSTRUCTED AND MAINTAINED IN SUCH A MANNER THAT SEDIMENT DOES NOT LEAVE THE TRAP AND THAT EROSION AT OR BELOW THE OUTLET DOES NOT OCCUR.
   - OUTLETS SHOULD BE DESIGNED SO THAT THE TOP OF THE EMBANKMENT IS A MINIMUM OF 1 FOOT ABOVE THE CREST ELEVATION OF THE OUTLET.
   - THE OUTLET OF THE TRAP SHOULD BE A MINIMUM OF ONE FOOT BELOW THE CREST OF THE TRAP
   - THE OUTLET SHOULD DISCHARGE TO A STABILIZED AREA. THE OUTLETS MUST EMPTY ONTO UNDISTURBED GROUND, INTO A WATERCOURSE, STABILIZED CHANNEL OR A STORM SEWER SYSTEM.
   - OUTLETS MAY BE CONSTRUCTED AS EARTH SPILLWAYS, STONE OUTLETS, OR PIPE OUTLETS.
4. EARTH OUTLETS:
   - AN EARTH OUTLET SEDIMENT TRAP HAS A DISCHARGE POINT THAT IS EITHER OVER NATURAL GROUND OR CUT INTO NATURAL GROUND.
   - THE OUTLET WIDTH SHOULD BE EQUAL TO 6 TIMES THE DRAINAGE AREA IN ACRES.
   - THE EMBANKMENT AND OUTLET SHOULD BE VEGETATED WITHIN 3 DAYS OF CONSTRUCTION.
5. STONE OUTLETS:
   - A STONE OUTLET SEDIMENT TRAP HAS AN OUTLET CONSISTING OF A CRUSHED STONE SECTION IN THE EMBANKMENT.
   - THE STONE SECTION SHOULD BE LOCATED AT THE LOW POINT OF THE NATURAL GROUND, AS DETERMINED AT THE DOWNSTREAM SIDE OF THE EMBANKMENT.
   - THE OUTLET SHOULD BE CONSTRUCTED OF MINIMUM SIZE 1 ½ CRUSHED STONE.
6. VEGETATION:
   - ALL EMBANKMENTS, EARTH SPILLWAYS, AND DISTURBED AREAS BELOW THE STRUCTURE SHOULD BE VEGETATED WITHIN 72 HOURS OF COMPLETION OF THE CONSTRUCTION OF THE STRUCTURE.
   - IF THE STRUCTURE IS NOT PLANNED FOR MORE THAN ONE VEGETATIVE GROWING SEASON, THE STRUCTURE MAY BE VEGETATED USING THE RECOMMENDATION OF THE TEMPORARY VEGETATION BEST MANAGEMENT PRACTICE DESCRIBED IN NHDES STORMWATER MANAGEMENT MANUAL, VOL. 2.
   - BASINS THAT WILL BE CARRIED OVER THE WINTER AND INTO THE NEXT VEGETATIVE GROWING SEASON SHOULD BE VEGETATED USING THE RECOMMENDATIONS FOR PERMANENT VEGETATION BEST MANAGEMENT PRACTICE.





Earth Outlet Temporary Sediment Trap

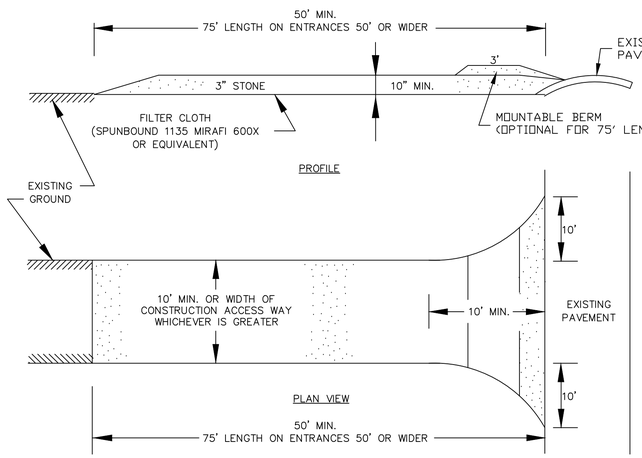
N.T.S.

TYPICAL CONSTRUCTION SEQUENCE

1. INSTALL HAY BALE BARRIERS AND SILT FENCES IN LOCATIONS SHOWN ON PLANS AS A MINIMUM. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY EARTH MOVING OPERATION. PREPARE TEMPORARY STABILIZED CONSTRUCTION ENTRANCE IN SUITABLE LOCATION.
2. INSPECT AND MAINTAIN EROSION CONTROL MEASURES ON A DAILY BASIS.
3. DAILY OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, CULVERTS, DITCHES, SILTATION FENCES, SEDIMENT TRAPS, ETC. MULCH AND SEED AS REQUIRED.
4. CUT AND CLEAR TREES, DISPOSE OF DEBRIS IN AN APPROVED OFF–SITE LOCATION.
5. THE WORK AREA SHALL BE GRADED, SHAPED AND OTHERWISE DRAINED IN SUCH A MANNER AS TO MINIMIZE SOIL EROSION, SILTATION OF DRAINAGE CHANNELS, DAMAGE TO EXISTING VEGETATION, AND DAMAGE TO PROPERTY OUTSIDE LIMITS OF THE WORK AREA. SILT FENCES, FILTER SOCK AND/OR DETENTION BASINS WILL BE NECESSARY TO ACCOMPLISH THIS.
6. TOPSOIL SHALL BE STRIPPED AND STOCKPILED DURING DRY CONDITIONS AND WITHOUT COMPACTION. TOPSOIL SHALL BE STABILIZED AGAINST EROSION.
7. REMOVE ONSITE UNDESIRABLE SOILS AND LEDGE.
8. GRUBBING AND STUMPING DISPOSAL IN AN APPROVED OFF–SITE LOCATION.
9. CONSTRUCT ALL DITCHES AND SWALES.
10. ALL DITCHES AND SWALES, SHALL BE STABILIZED PRIOR TO DIRECTING ANY STORM WATER INTO THEM.
11. CONSTRUCT SLOPED EMBANKMENTS.
12. ROUGH GRADE SITE OR PHASED WORK AREA. DISTURBED AREAS SHALL BE STABILIZED UPON COMPLETION OF ROUGH GRADING PER THE EROSION CONTROL NOTES.
13. INSTALL ALL UNDERGROUND UTILITIES.
14. INSTALL DRAINAGE STRUCTURES, CULVERTS, HEADWALLS, RIP RAP, AND OTHER DRAINAGE FACILITIES. PLACE CATCH BASIN RIMS IN DANDY BAGS UNTIL PARKING AREAS ARE PAVED. STORMWATER PONDS, INFILTRATION BASINS AND SWALES MUST BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
15. FINISH GRADING, LOAMING AND SEEDING. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 72 HOURS AFTER FINAL GRADING.
16. COMPLETE PERMANENT SEEDING AND LANDSCAPING.
17. TEMPORARY EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL ALL DISTURBED AREAS ARE STABILIZED AND HAVE A HEALTHY VEGETATIVE COVER.
18. CLEAN ALL DRAINAGE STRUCTURE SUMPS OF SEDIMENT AND DEBRIS (INCLUDES ALL STRUCTURES WITHIN THE LIMITS OF WORK).
19. DUST SHALL BE CONTROLLED DURING CONSTRUCTION BY ADEQUATE USE OF WATER.

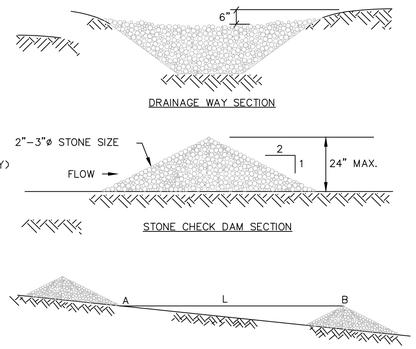
WINTER EROSION CONTROL NOTES

1. ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS;
2. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS; AND
3. AFTER OCTOBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3.



1. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
2. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED
3. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS–OF–WAY MUST BE REMOVED IMMEDIATELY.
4. WASHING – WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO

USDA – SCS Stabilized Construction Entrance



STONE CHECK DAM SPACING

L = THE DISTANCE SUCH THAT THE ELEV. A = THE ELEV. B

MAINTENANCE:

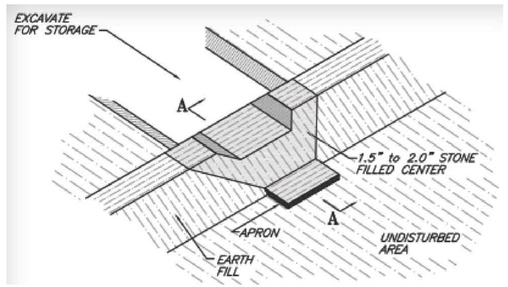
1. TEMPORARY GRADE STABILIZATION STRUCTURES SHOULD BE CHECKED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED STORMS. ANY NECESSARY REPAIRS SHOULD BE MADE IMMEDIATELY. PARTICULAR ATTENTION SHOULD BE GIVEN TO END RUN AND EROSION AT THE DOWNSTREAM TOE OF THE STRUCTURE. WHEN THE STRUCTURES ARE REMOVED, THE DISTURBED PORTION SHOULD BE BROUGHT TO THE EXISTING CHANNEL GRADE AND THE AREAS PREPARED, SEEDED AND MULCHED. WHILE THIS PRACTICE IS NOT INTENDED TO BE USED PRIMARILY FOR SEDIMENT TRAPPING, SOME SEDIMENT WILL ACCUMULATE BEHIND THE STRUCTURES. SEDIMENT SHALL BE REMOVED FROM BEHIND THE STRUCTURES WHEN IT HAS ACCUMULATED TO ONE HALF OF THE ORIGINAL HEIGHT OF THE STRUCTURE.

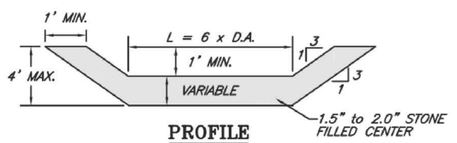
CONSTRUCTION SPECIFICATIONS:

1. DAMS SHALL BE INSTALLED AT THE LOCATIONS SHOWN ON THE PLANS.
2. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER SO THAT EROSION AND AIR AND WATER POLLUTION WILL BE MINIMIZED.
3. STRUCTURES SHALL BE REMOVED FROM THE CHANNEL WHEN THEIR USEFUL LIFE HAS BE COMPLETED.
4. STONE SHALL BE FRACTURED FACE STONE. D50 SIZE SHALL BE 2 TO 3 INCHES. NO STONE SMALLER THAN 1–1/2 INCHES OR LARGER THAN 4 INCHES SHALL BE USED.

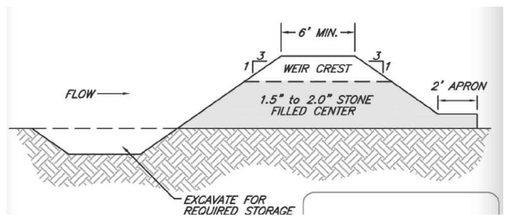
Typical Stone Check Dam Detail

N.T.S.





PROFILE



Temporary Sediment Trap

N.T.S.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

STATE OF NEW HAMPSHIRE – ALPHONSE DUBOIS III – No. 11921 – LICENSED PROFESSIONAL ENGINEER – DRAFT

SCALE: HORZ.: N/A VERT.: N/A
DATUM: HORZ.: VERT.: NAVD88
0 GRAPHIC SCALE

FUSS&O'NEILL
50 COMMERCIAL STREET
MANCHESTER, NEW HAMPSHIRE 03101
603.668.8223
www.fussoneill.com

RESIDENCES AT CHESTNUT
BUILDING 2
CIVIL DETAILS
EROSION CONTROL
TAX MAP 73 LOTS 30A & 31
MERRIMACK STREET
MANCHESTER NEW HAMPSHIRE

PROJ. No.: 20211191.A10
DATE: MAY 2022

CD-529

File Path: J:\DWG\P2021\11911\A10\Civil\Plan\20211191.A10_DTL501-MERRIMACK BLDG2_1_23193_037f871d.sv$.dwg Layout: CD-529 Plotted: Wed, May 25, 2022 - 12:39 PM User: adubois
MS VIEW: LAYER STATE: Plotter: DWG TO PDF.PC3 CTB File: FO.STB

SUBMITTED PLANS AND ELEVATIONS ARE CONCEPTUAL AND SUBJECT TO CHANGE DURING CONSTRUCTION DOCUMENT DEVELOPMENT.

2 FLOOR PLAN - BUILDING 2 - SECOND FLOOR

SCALE: 1/16" = 1'-0"

1 FLOOR PLAN - BUILDING 2 - FIRST FLOOR

SCALE: 1/16" = 1'-0"

UNIT MATRIX : BLDG 2	
STUDIO	21
1-BEDROOM	8
2-BEDROOM	15
TOTAL:	44

RESIDENCES AT CHESTNUT

MANCHESTER, NH

BUILDING - 2 (MERRIMACK STREET)

NORTH

Date: MAY 2022
Project No.: 2022003

MARKET SQUARE ARCHITECTS
104 Congress St., STE 203
Portsmouth, NH 03801
PH: 603.501.0202

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SUBMITTED PLANS AND ELEVATIONS ARE CONCEPTUAL AND SUBJECT TO CHANGE DURING CONSTRUCTION DOCUMENT DEVELOPMENT.

2 FLOOR PLAN - BUILDING 2 - FOURTH FLOOR

SCALE: 1/16" = 1'-0"

1 FLOOR PLAN - BUILDING 2 - THIRD FLOOR

SCALE: 1/16" = 1'-0"

UNIT MATRIX : BLDG 2	
STUDIO	21
1-BEDROOM	8
2-BEDROOM	15
TOTAL:	44

RESIDENCES AT CHESTNUT

MANCHESTER, NH

BUILDING - 2 (MERRIMACK STREET)

NORTH

Date: MAY 2022
Project No.: 2022003

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SUBMITTED PLANS AND ELEVATIONS ARE CONCEPTUAL AND SUBJECT TO CHANGE DURING CONSTRUCTION DOCUMENT DEVELOPMENT.

4 ELEVATION – MERRIMACK STREET (NORTH)

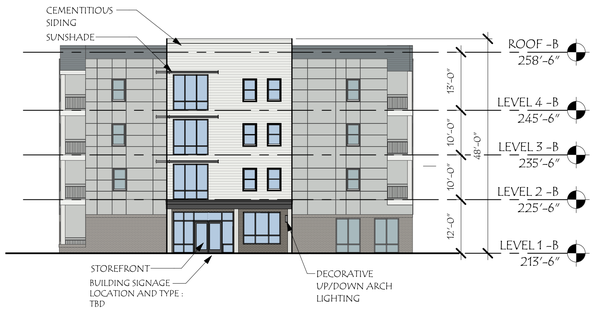
SCALE: 1/16" = 1'-0"

2 ELEVATION – PINE STREET (EAST)

SCALE: 1/16" = 1'-0"

3 ELEVATION – PARKING LOT (SOUTH)

SCALE: 1/16" = 1'-0"



1 ELEVATION – FRONT (WEST)

SCALE: 1/16" = 1'-0"

RESIDENCES AT CHESTNUT

MANCHESTER, NH

BUILDING – 2 (MERRIMACK STREET)

Date: MAY 2022
Project No.: 2022003

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